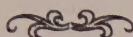


The North Central Association Quarterly



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THE North Central Association QUARTERLY

Vol. IV

SEPTEMBER, 1929

No. 2

News Notes and Editorial Comments

By C. O. DAVIS

NEXT MEETING

The next annual meeting of the Association will be held in the Hotel Stevens, Chicago, March 18-21, 1930.

THE QUINQUENNIAL YEAR

Every fifth year the Commission on Secondary Schools makes an extensive statistical study of conditions in North Central approved schools. This is the quinquennial year. Elsewhere in this issue will be found facsimiles of the blanks to be used.

THE DEAM STUDY

In the March issue of the Quarterly there appeared an elaborate study dealing with extra curriculum activities. This study was prepared under the chairmanship of Mr. Deam of the Commission on Unit Courses and Curricula. It is a study that should be read by many persons and is peculiarly suited to classroom instruction in colleges and normal schools offering courses in the subject. Reprints of this study have been prepared and can be obtained by addressing the Editor of the Quarterly, Room 4012 University High School Bldg., Ann Arbor, Michigan. The price is \$.10.

MORE CHANGES

Each month brings notices of shiftings in positions among North Central Asso-

ciation workers. Two of the latest to be reported are: Mr. Merle Prunty from Principal of the High School in Tulsa, Oklahoma, to the superintendency of that city; and Mr. Will French from the principalship of the Lincoln, Nebraska, High School to the position of Associate Superintendent in Charge of Curriculum Construction in the Tulsa schools. Mr. Prunty is a member of the North Central Association Executive Committee, while Mr. French is Secretary of the Commission on Unit Courses and Curricula.

COMMITTEE REPORTS

This issue of the Quarterly contains a number of most interesting reports of committees. These deal with financial standards; academic equivalents for teacher training curricula; library standards; teaching load; faculty training; part-time education; professional qualifications of college teachers; and professional training of secondary teachers. Surely all members of the Association will wish to peruse these reports with care and reflection.

PRESIDENT EARLY'S ADDRESS

Mr. W. I. Early's presidential address will be found in this issue. Its reading will certainly cause many individuals to applaud silently if not openly. Parti-

cularly effective is he when, speaking of high school and college failures, he says: "Sometimes I have thought that we have been more interested in adding to the list of the 'killed, captured, and missing' than we were in the conservation of human values. Can we afford to overlook the fact that these boys and girls are the sons and daughters of parents who have thought that sending them to college was the finest thing they could do for them? Modern civilization regards every boy and girl as a goal. Each is a person and not food for an institutional mill. He is a life standing at the threshold of society, in most cases craving a chance for the development of his personality and for the exercise of his capacity, however meager and limited that may be. Moreover, he is a product of the ages. He did not choose the blood which flows in his veins nor select the environment in which he finds himself. America has decreed that he shall have an opportunity through education to rise above that heritage."

ERRATA

Two regrettable errors crept into the June Quarterly. These are:

1. In the list of approved institutions (page 24) of the Association of Colleges and Secondary Schools of the Middle States and Maryland, Goucher College was said to be located at Grove City, Pennsylvania. This college is, of course, located in Baltimore, Maryland. The error occurred through the omission of one whole line of type and the omission was not noticed in the proof reading. Grove City College is located at Grove City, Pennsylvania.
2. On page 69 of the Quarterly the names of two college presidents were wrongly given. The correct present reading should be as follows.
Oklahoma, Southeastern State Teachers College at Durant, President Eugene S. Briggs.
Oklahoma, Northwestern State Teachers College at Alva, President W. W. Parker.

SCHOOLS DISCONTINUED

Eleven secondary schools which were on the approved list of the Association in 1928 are not to be found in the new lists of 1929. This is due to the fact that these schools have been discontinued. They are:

Illinois—

Elmhurst College Academy

Iowa—

Mount St. Joseph

University High School

Kansas—

Bethany Academy (Lindsborg)

Bethany Academy (Topeka)

Michigan—

College High School (Detroit)

Missouri—

Christian College Academy

Synodical College Academy

Nebraska—

York Academy

New Mexico—

New Mexico Normal Univ. (Prep. Dept.)

South Dakota—

Huron College Academy

STANDING COMMITTEES

The June issue of the Quarterly contained the lists of most of the standing committees of the Commission on Secondary Schools. The following are the lists of committees of the other two Commissions.

A. COMMITTEES OF THE COMMISSION ON UNIT COURSES AND CURRICULA

(1) Committee on Standards for Use in the Reorganization of Secondary School Curricula

L. W. Webb, Chairman, Northwestern University, Evanston, Illinois

J. A. Clement, University of Illinois, Urbana, Illinois

C. O. Davis, University of Michigan, Ann Arbor, Michigan

T. M. Deam, Joliet Township High School and Junior College, Joliet, Illinois

J. E. Foster, Iowa State College, Ames, Iowa

M. H. Willing, University of Wisconsin, Madison, Wisconsin
 F. D. Curtis, University of Michigan, Ann Arbor, Michigan
 W. H. Lancelot, State Teachers College, Ames, Iowa
 Miss Olivia Pound, High School, Lincoln, Nebraska
 H. L. Smith, University of Indiana, Bloomington, Indiana
 J. E. Stout, Northwestern University, Evanston, Illinois
 E. R. Downing, University of Chicago, Chicago, Illinois
 Thomas J. Kirby, University of Iowa, Iowa City, Iowa
 R. L. Lyman, University of Chicago, Chicago, Illinois
 Raleigh Schorling, University of Michigan, Ann Arbor, Michigan
 R. M. Tryon, University of Chicago, Chicago, Illinois
 W. G. Whitford, University of Chicago, Chicago, Illinois

(2) Committee on the Professional Training of the High School Teachers in the North Central Territory

Will French, Board of Education, Tulsa, Oklahoma, Chairman
 H. H. Ryan, University of Wisconsin, Madison, Wisconsin
 M. H. Stuart, Arsenal Technical High School, Indianapolis, Indiana
 G. W. Willett, Lyons Township High School, La Grange, Illinois
 L. W. Brooks, Director of Secondary Education, Wichita, Kansas
 F. L. Bacon, Evanston Township High School, Evanston, Illinois
 F. E. Henzlik, University of Nebraska, Lincoln, Nebraska

(3) Committee on the Revision of English Books for College Entrance of the North Central Association

E. L. Miller, Assistant Superintendent, Detroit Public Schools, Detroit, Michigan, Chairman
 R. L. Lyman, University of Chicago, Chicago, Illinois
 Thomas W. Gosling, Superintendent of Schools, Akron, Ohio

E. H. Kemper McComb, Principal, Emerich Manual Training School, Indianapolis, Indiana
 Miss Ruy Belle Inglis, President of the National Council of Teachers of English, Minneapolis, Minnesota
 Miss Essie Chamberlain, Oak Park High School, Oak Park, Illinois
 Miss Sarah T. Muir, Lincoln High School, Lincoln, Nebraska
 F. H. Bair, Superintendent of Schools, Shaker Heights, Cleveland, Ohio
 Morquise E. Shattuck, Director of Languages, Detroit, Michigan

This committee has for its task the bringing up to date the list of English books for college entrance. The task undertaken is an extension of the work done by a committee working under the same chairmen and reporting in 1921.

B. COMMITTEES OF THE COMMISSION ON HIGHER EDUCATION

Committee on Athletics

H. M. Gage, Coe College, Cedar Rapids, Iowa
 John L. Griffith, 6 N. Michigan Ave., Chicago, Illinois
 George F. Zook, University of Akron, Akron, Ohio
 C. W. Savage, Oberlin College, Oberlin, Ohio
 Ralph J. Gilmore, Colorado College, Colorado Springs, Colorado

Committee on Financial Standards for Catholic Institutions

R. M. Hughes, Iowa State College, Ames, Iowa
 Wm. F. Cunningham, C. S. C., College of St. Thomas, St. Paul, Minnesota
 Alphonse M. Schwitalla, S. J., St. Louis University, St. Louis, Missouri

Committee on Library Standards

George A. Works, University of Chicago, Chicago, Illinois
 Betty H. Pritchett, Coe College, Cedar Rapids, Iowa
 Edgar King, Miami University, Oxford, Ohio

Committee on Professional Training

William E. Smyser, Ohio Wesleyan University, Delaware, Ohio

M. E. Haggerty, University of Minnesota, Minneapolis, Minnesota

J. R. Effinger, University of Michigan, Ann Arbor, Michigan

Thomas W. Gosling, Superintendent of Schools, Akron, Ohio

J. M. Wood, Stephens College, Columbia, Missouri

Committee on Reports to High Schools

C. S. Boucher, University of Chicago, Chicago, Illinois

C. R. Maxwell, University of Wyoming, Laramie, Wyoming

Ira M. Smith, University of Michigan, Ann Arbor, Michigan

Committee on Revision of Standards
To be appointed**Board of Review**

H. M. Gage, Coe College, Cedar Rapids, Iowa

C. S. Boucher, University of Chicago, Chicago, Illinois

George F. Zook, University of Akron, Akron, Ohio

George Buck, Shortridge High School, Indianapolis, Indiana

John R. Effinger, University of Michigan, Ann Arbor, Michigan

W. P. Morgan, Western Illinois State Teachers College, Macomb, Illinois

Wm. F. Cunningham, College of St. Thomas, St. Paul, Minnesota

Committee on Stephens College Experiment

Charles H. Judd, University of Chicago, Chicago, Illinois

L. V. Koos, University of Minnesota, Minneapolis, Minnesota

George F. Zook, University of Akron, Akron, Ohio

Committee on Joliet Junior College Experiment

H. C. Morrison, University of Chicago, Chicago, Illinois

C. E. Chadsey, University of Illinois,

Urbana, Illinois

J. E. Stout, Northwestern University, Evanston, Illinois

Committee on Kansas City Junior College Experiment

Charles H. Judd, University of Chicago, Chicago, Illinois

L. V. Koos, University of Minnesota, Minneapolis, Minnesota

George F. Zook, University of Akron, Akron, Ohio

C. COMMITTEES OF THE GENERAL ASSOCIATION**(1) Delegates to the National Council on Education**

Thomas M. Deam, Assistant Superintendent of Schools, Joliet, Illinois

Charles H. Judd, University of Chicago, Chicago, Illinois

George F. Zook, University of Akron, Akron, Ohio

(2) Budget Committee

President W. P. Morgan, Western Illinois State Teachers College, Macomb, Illinois

Secretary J. B. Edmonson, University of Michigan, Ann Arbor

Treasurer E. H. K. McComb, Emmerich Manual Training High School, Indianapolis, Indiana

By action of the executive committee, the budget committee consists of the president, secretary and treasurer of the Association.

(3) Committee on Program

President

Secretary

Chairmen of the three Commissions

By action of the executive committee, the committee on program consists of the president, secretary and chairmen of the three commissions of the Association.

(4) Honorary Membership Committee

W. P. Morgan, Western Illinois State Teachers College, Macomb, Illinois

Mr. Morgan was appointed in 1928 by the executive committee to nominate individuals for honorary membership.

(5) Selective Group of Higher Institutions Committee

W. W. Boyd, Western College for Women, Oxford, Ohio

F. C. Landsittel, Ohio State University, Columbus, Ohio

George F. Zook, University of Akron, Akron, Ohio

It was to be the function of this committee to select a group of institutions for the purpose of carrying on experimentation.

(6) National Committee on Research in Secondary Education

Secretary J. B. Edmonson, University of Michigan, Ann Arbor, Michigan

The North Central Association of Colleges and Secondary Schools is one of the eighteen national and regional associations that is furthering the work of the National Committee on Research in Secondary Education.

(7) Special Committee to Consider the Practice of the Commission on Secondary Schools in Preparing a List of Non-Approved Colleges

C. C. Brown, University of Colorado, Boulder, Colorado

H. M. Gage, Coe College, Cedar Rapids, Iowa

F. C. Landsittel, Ohio State University, Columbus, Ohio

George F. Zook, University of Akron, Akron, Ohio

FORM LETTERS AND CERTIFICATES

Each year immediately following the meeting of the Association in Chicago, form letters are sent to all secondary schools that have sought accreditation. These letters are of two general sorts:

(1) those sent to schools *fully approved*

(Facsimile of the letter sent to schools that were approved.)

April 1, 1929.

To the Authorities of a North Central School:

We take great pleasure in informing you that your school has been placed on the approved list of the North Central Association of College and Secondary Schools for the period ending March 21, 1930. This action was taken at the thirty-fourth annual meeting of the Association held in Chicago, March 14-15, 1929. It may interest you to know that recognition was extended to 2,256 secondary schools in the twenty states in the North Central Association.

Within a week or ten days you will receive from the Chairman of your State Committee a certificate of accrediting that will be valid for the period ending March 21, 1930. In explanation of the term of accrediting ending March 21, 1930, we wish to state that it is the policy of the North Central Association to approve secondary schools from year to year. We hope that you will post the certificate in your office in order to inform the pupils, teachers, and patrons concerning the honor accorded your school.

The proceedings, principal papers, decisions of the Association, revised standards, and other important matters will appear in future issues of the North Central Association Quarterly. The next issue will appear about June first.

If you have any questions concerning North Central standards, policies or activities, please write to the Chairman of the North Central Committee for your state.

Very truly yours,

W. P. Morgan, President

J. B. Edmonson, Secretary

Chairman of State Committee.

(Facsimile of the letter sent to schools that were *warned*.)

April 1, 1929.

To the Authorities of a North Central School:

We take great pleasure in informing you that your school has been placed on the approved list of the North Central Association of Colleges and Secondary Schools for the period ending March 21, 1930. This action was taken at the thirty-fourth annual meeting of the Association held in Chicago, March 14-15, 1929.

Because of certain facts submitted in your annual report to the Association we were instructed to inform you that your school was to be Warned. The Chairman of your State Committee will inform you concerning the deficiencies that were noted in your recent report. We hope that you will find it possible to remove these deficiencies before the next meeting of the Association as the rules provide that: "Schools that have been continuously accredited for five or more years may not be dropped for any violation of standards. Such schools are to be warned. But if violation of the same standard or regulation is persisted in for a second year they shall be dropped." Your State Chairman will be pleased to give you every possible help in your efforts to remove your school from the Warned list.

The proceedings, principal papers, decisions of the Association, revised standards, and other important matters will appear in future issues of the North Central Association Quarterly. The next issue will appear about June first.

If you have any questions concerning North Central standards, policies or activities, please write to the Chairman of the North Central Committee for your State.

Very truly yours,

W. P. Morgan, President

J. B. Edmonson, Secretary

Chairman of State Committee.

(Facsimile of the letter sent to schools that were *dropped* from the approved list.)

April 4, 1929.

My dear Sir:

As Secretary of the North Central Association of Colleges and Secondary Schools it is my official duty to inform you that your high school has been refused continued recognition as an approved school. This action was taken at the recent meeting of the Association held in Chicago, March 12-15.

The Chairman of your State Committee will be able to explain to you the reasons for the adverse decision of the Association. I hope that it will be possible for you to remove the causes for the rejection of your school and to be eligible for recognition at the next meeting of the Association.

Very truly yours,

J. B. Edmonson,

Secretary.

North Central Association of Colleges and Secondary Schools

Founded 1895

This is to Certify that the

is on the Approved List of Secondary Schools of the North Central Association of Colleges and Secondary Schools for the period beginning March 15, 1929, and ending March 21, 1930. It is also certified that this secondary school has been continuously recognized by the Association since 19__

CHAIRMAN OF STATE COMMITTEE

H. D. Morgan
PRESIDENT

J. B. Edmondson
SECRETARY

(Facsimile of Certificate sent to approved schools.)

and (2) those sent to schools that are *warned*. These official letters are signed by the President and the Secretary of the Association and the Chairman of the State Committee. If a school is, for any reason, *dropped* from the approved list a personal letter, rather than a form letter, is sent. This letter (happily infrequently sent) states the fact that the school has failed to secure recognition and informs the authorities that full information respecting the causes for the failure to re-accredit will be furnished by the State Chairman concerned. State Chairmen also frequently send official letters to all the schools within their state—especially if schools have been officially *advised* by the Commission.

In order that readers of the *Quarterly* may know in detail the character of these letters, facsimiles of those mailed out after the March meeting of this year are being reproduced here.

Besides the form letter the Association mails to each accredited school a certificate duly signed by the President, the Secretary and the State Chairman, this certificate being printed on good heavy cardboard, size 10 by 7¼ inches and suitable for framing if the school authorities so desire. A reproduction of this certificate considerably reduced in size is inserted here.

THE QUINQUENNIAL BLANKS

All secondary schools which seek accreditation or approval of the North Central Association must, each year, fill out and transmit to the proper officials a so-called Annual Report blank. These blanks usually request only such information as is needed in order to judge whether or not schools are meeting the fixed standards of the Association. However, every five years very comprehensive data are sought, partly for general

statistical purposes and comparisons and partly for more accurate checking purposes. The present year, 1929-1930, is the regular quinquennial year. Consequently elaborate blanks are being prepared for use by the Commission on Secondary Schools.

While, of course, all secondary schools seeking the approval of the Association will receive these forms and all members of the Commission on Secondary Schools will be conversant with them, the workers in the other two great Commissions of the Association and hosts of friends not directly concerned with any Commission will not necessarily have the opportunity of knowing anything about them. For these reasons it seems appropriate to reprint these blanks in the *Quarterly*.

As set up, there are this year to be seven of these, namely, Form A, the annual blank; Form B, gathering data on teachers not new to the particular school system this year; Form B1, asking information respecting teachers who are new to the given school this year; Form C, a blank dealing with buildings and equipment; Form D, a blank carrying a certification of the academic and professional training received by teachers as authenticated by college officials and countersigned by a North Central Association State Chairman; Form E, a form to be used by all new schools seeking accrediting and giving the promise of the Board of Education "to conform to all standards and regulations of the Association," provided the application of the school for membership is given favorable consideration.

In printing these blanks the form has been slightly changed in order to adapt them to the style of the *Quarterly*; otherwise they appear as facsimiles of the originals.—The Editor.

FORM A-To be filled in by all schools

Special Notice: Please return this blank by Nov. 1, 1929.

North Central Association of Colleges and Secondary Schools

ANNUAL REPORT

High School located at State of

Officer responsible for the report:

(Superintendent or Principal)

(The Commission prefers that the report be typewritten, if convenient.)

GENERAL INFORMATION

No school can be considered unless the regular annual blank furnished for the purpose shall have been properly and completely filled out and placed on file with the inspector, on or before December first.

1. Date of forwarding this report to inspector,
1929.

2. Is the Board of Education fully in sympathy with North Central Association principles? If not, attach statement of objections.

3. Enrollment on October 1, 1929.

Grade	Boys	Girls	Total
7th -	-
8th -	-
9th -	-
10th -	-
11th -	-
12th -	-
Totals	-

4. Graduates, 1929

Boys Girls Total

5. Is the school in the highest class of schools as listed by the

State educational authorities?

6. Was your school warned last year?

Why?

Five and six-year high schools may elect to be accredited as such when all of the following standards except standard 9 are applied to and reported for all grades. Otherwise they will be listed as four-year high schools and all standards must be applied to and reported for grades 9, 10, 11, and 12. Other types of organization must report on all grades included in the organization.

7. What grades are included in your school?

What grades are included in this report?

Form A—Continued

STANDARD 1. HYGIENIC CONDITIONS

The location and construction of the building, the lighting, heating, and ventilation of the rooms, the nature of the lavatories, corridors, closets, water supply, school furniture, apparatus, and methods of cleaning shall be such as to insure hygienic conditions for both pupils and teachers.

8. Does the school conform to the requirements indicated in Standard I? (Mention any exceptions)

STANDARD 2. LIBRARY AND LABORATORIES

The library and laboratory facilities must be adequate to meet the needs of instruction in all courses offered. The library shall be classified and catalogued, and an annual inventory should be made of laboratory and shop equipment.

9. Are your laboratory facilities adequate to the needs of instruction?
If not, in what particulars are they deficient?

10. a. Are your library facilities adequate to the needs of instruction?

If not, in what particulars are they deficient?

- b. Is the library catalogued?

11. What amount was expended for high school library books and magazines last year?

12. Do you have an adequate supply of up-to-date maps and charts for history and other social studies?

STANDARD 3. RECORDS

Accurate and complete records of attendance and scholarship must be kept in such form as to be conveniently used and safely preserved.

13. Is this standard fully met?

STANDARD 4. REQUIREMENTS FOR GRADUATION.

(a) Three-year high schools must require a minimum of eleven units for graduation. Other high schools must require a minimum of fifteen units for graduation; these units to be earned in grades 9, 10, 11, and 12.

(b) The school year shall consist of a minimum of thirty-six weeks.

(c) The minimum length of a recitation period shall be forty minutes, exclusive of all time used in changing of classes or teachers.

(d) A unit course of study in a secondary school is defined as a course covering an academic year, that shall include in the aggregate not less than the equivalent of one hundred twenty sixty-minute hours of classroom work—two hours of shop or laboratory work being equivalent to one hour of prepared class room work.

14. How many units are required for graduation? (4 yr. school)
(3 yr. Senior High School)

15. Number of weeks of actual school work excluding Christmas and Easter vacations, but not single holidays?

16. What is the length of your usual class periods (exclusive of time for passing of classes)?

STANDARD 5. INSTRUCTION AND SPIRIT

The efficiency of instruction, the acquired habit of thought and study, the general intellectual and moral tone of a school and co-operative attitude of the community are paramount factors and therefore only schools that rank well in these particulars, as evidenced by rigid, thorough-going, sympathetic inspection, shall be considered eligible for the list.

17. Does the school rank well in the particulars named above?

If not, in what deficient?

STANDARD 6. SALARIES

No school shall hereafter be approved whose salary schedule is not sufficient to command and retain teachers whose qualifications are such as required by this Association.

18. What is the lowest annual salary paid in your school?

the highest? the average for men?

women? (in the above statements do not include salaries of superintendent or principal)

19. Is the salary schedule of your school sufficiently liberal to attract and retain college graduates of good teaching ability?

STANDARD 7. PREPARATION OF TEACHERS AND SUPERVISORS*

20. How many teachers and supervisors of any academic subject are new to your high school this year

(a) The minimum attainments of a teacher of any academic subject, and of the supervisors of teachers of such subjects, of the superintendent, and of the principal, shall be college work equivalent to graduation from a college belonging to the North Central Association of Colleges and Secondary Schools.

21. a. How many of the new teachers and supervisors of any academic subject conform in their qualifications to this standard?

b. How many do not?

(b) The minimum professional training of a teacher of any academic subject, of the supervisors of teachers of such subjects, of the superintendent and of the principal shall be fifteen semester hours in education. Requirements (a) and (b) shall not be construed as retroactive within the Association.

(Note) This Commission will accept as education only courses certified as education by the institution in which they are taken.

22. a. How many of the new teachers and supervisors of any academic subject conform in their qualifications to this standard?

b. How many do not?

(c) All teachers of academic subjects in new schools and all new teachers of academic subjects in accredited schools must teach in the fields of their major or minor specialization in college preparation. A minor is interpreted as consisting of a minimum of ten semester hours. (Note) The following are listed as academic subjects: English, mathematics, foreign languages, natural science, and social science. All other subjects will be considered as non-academic.

23. Does the school comply fully with this regulation?

If not attach explanation.

24. a. Is the superintendent new (as a superintendent) to your school system, this year

b. If so, do his qualifications meet the requirements of standard 7a? (1)

Of standard 7b? (2)

(d) In all emergency appointments during the school year in which teachers do not fully meet standards 7a and 7b, the Commission will insist that these be temporary and for the remainder of the current year only. Such cases must be certified by the superintendent or principal, including a statement concerning the training, experience, salaries, and efficiency of such teachers.

STANDARD 8. PUPIL-TEACHER RATIO

An average enrollment in the school in excess of thirty pupils per teacher shall be considered as a violation of this standard. For interpreting this Standard the principal, vice-principals, study hall teachers, vocational advisors, librarians and other supervisory officers may be counted as teachers for such portion of their time as they devote to the management of the high school. In addition such clerks as aid in the administration of the high school may be counted on the basis of two full-time clerks for one full-time teacher.

25. Number of staff officers:

a. Full-time teachers

b. Part-time teachers

c. Full-time equivalency of part-time teachers

(Divide number of periods taught daily by all part-time teachers by the average number of periods taught by all full-time teachers).

d. Full-time supervisors (principals, superintendents, special supervisors and librarians) or equivalent (if any devote part-time to the high school)**

e. Full-time clerks or equivalent (if any devote part-time to the high school)

f. Sum of a, c, d, and $\frac{1}{2}e$ (above)

26. What is your pupil-teacher ratio?

(Divide pupil enrollment, item 2, by 25f).

N. B. In Computing item 26 be sure that your teaching staff and pupil enrollments are computed for the same grades, e. g., 9-10-11-12 or 10-11-12.

*By supervisors is meant principals, superintendents, and supervisors of special subjects.

**List as special supervisors only those who supervise high school departments, not part time teachers of special subjects.

Form A—Continued

STANDARD 9. THE PUPIL LOAD

Four unit* courses, or the equivalent in fractional unit courses as defined in Standard 4, shall be considered the normal amount of work carried for credit by the average or medium student. Only such students as rank in ability in the upper 25% of the student body may be allowed to take more than four units for credit. A different practice in the school must be explained to the State Committee.

(In computing pupil-load count only those courses which are included in the 15 or 16 units for graduation).

27. Number pupils carrying for credit:

- a. Less than 4 units..... b. Four units.....
c. More than 4 but less than 5 units.....
d. 5 units..... e. More than 5 units.....

RECOMMENDATIONS

The Association recommends the following as norms:

- a. Pupil-teacher ratio—25 to 1.
b. The number of classes taught by the teacher—5 daily.
c. The total number of pupil-periods per day—150 per teacher.
(Reasonable deviations may be made from the recommendations provided that the load as a whole is reasonable.)

28. No. teachers teaching daily:

- a. Less than four classes..... b. Four classes.....
c. Five classes..... d. Six classes.....
e. More than 6 classes.....

29. No. teachers teaching daily:

- a. Less than 141 pupils..... b. 141-150 pupils.....
c. 151-160 pupils..... d. More than 160 pupils.....

The Association recommends that three units in English, two units in social science, one unit in biological science or one unit in general science and one unit in physical education or health, (with or without

credit), be required for graduation for all students in the four-year high school.

It further recommends the introduction of vocational subjects such as agriculture, manual training, household economics, and commercial subjects into schools where local conditions render such introduction feasible. The Association will hold that a sufficient number of qualified teachers must be provided to care adequately for all instruction offered.

30. No. units in following subjects required for graduation:

- a. English b. Biology or general science.....
c. Social studies d. Physical education

31. No. units offered in the following subjects:

- a. Agriculture b. Household economics
c. Manual training d. Commercial subjects

32. How many full time teachers, or the equivalent, are assigned to non-academic subjects?

FOR NEW SCHOOLS ONLY

No new school will be accredited which employs less than five full-time teachers, or the equivalent, four of whom, or the equivalent, must be full-time teachers of academic subjects.

33. a. How many recitations are provided for in your daily program?

b. How many of these are in academic subjects?

(Attach a copy of your daily program).

Regulation 2 of the Association requires that before any new school shall be approved, the board of education or school trustees shall submit evidence (e. g., a resolution) showing they give their approval of the standards of the Association and of the application for membership. New schools will attach a copy of Form E properly filled out.

*See standard 4 (d) for definitions of unit.

Form A—Continued

ENROLLMENT BY SUBJECTS†

No. of pupils enrolled in:

1. *Mathematics*

- a. General Mathematics
b. First year Algebra
c. Advanced Algebra
d. Plane Geometry
e. Solid Geometry
f. Trigonometry
g. Arithmetic for academic credit
h. Total

Total

Boys

Girls

Units*
Credit
Given2. *English*

- a. Freshman year
b. Sophomore year
c. Junior year
d. Senior year
e. Public Speaking
f. Dramatics
g. Total

3. *Foreign Language*A. *Latin*

- a. First year
b. Second year (or)
Caesar
Cicero
d. Virgil
e. Total

B. *Greek*

- a. First year
b. Second year
c. Total
C. *French*

- a. First year
b. Second year
c. Third year
d. Fourth year
e. Total

D. *Spanish*

- a. First year
b. Second year
c. Third year
d. Fourth year
e. Total

E. *German*

- a. First year
b. Second year
c. Third year
d. Fourth year
e. Total

F. *Other languages*Total for all
languages4. *Social Studies*

- a. Community Civics
b. Ancient History
c. World History
d. M & M History
e. American History

*See standard 4 (d) for definition of unit.

†For second semester subjects give enrollment for the second semester of 1928-1929.
Five and six year high schools should give data for the last four years only.

Form A—Continued

NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS

State of year 1928-1929

ANNUAL REPORT

OF THE

..... High School

(To be filled in by the State Committee)

1. Is it the opinion of the State Committee that this school fully meets:

- a. Regulation No. 1?
- b. Regulation No. 4?
- c. Regulation No. 9?
- d. Standard No. 1?
- e. Standard No. 2?
- f. Standard No. 5?
- g. Standard No. 6?
- h. Standard No. 7?
- i. Standard No. 8?
- j. Standard No. 9?

2. Was the school warned last year?

State standards violated

3. Shall the school be *unqualifiedly recommended* for accrediting?

4. Shall the school be recommended for accrediting with a *special warning*?

State standards violated

5. Shall the school be *advised* to improve in certain particulars?

State standards involved

6. Is it recommended that the school be *dropped*?

State standards violated

7. Comments of State Committee

Signature of Chairman of State Committee:

*Final action taken by the Association:

TEACHERS AND SUPERVISORS (INCL

Use this form for NEW TEACHERS o

Name* (List all names alphabetically)	1 Names of all collegiate institutions attended	2 Dates attended	†3 Degree or No. of hours earned in each inst.		No. in e ca Se
			Sem.	Term	
Major Subj.....					
Minor Subj.....					
Major Subj.....					
Minor Subj.....					
Major Subj.....					
Minor Subj.....					
Major Subj.....					
Minor Subj.....					
Major Subj.....					
Minor Subj.....					
Major Subj.....					
Minor Subj.....					
Major Subj.....					
Minor Subj.....					
Major Subj.....					
Minor Subj.....					
Major Subj.....					
Minor Subj.....					

*Teachers without degrees are expected to submit credentials in accordance with Standard

**Only those courses which are certified as education by the institution in which they

†A semester hour is the credit given for a course having one recitation a week for 18 weeks

18). A term hour is credit given for a course having one recitation per week for 12 weeks

PRINCIPALS AND SUPERINTENDENTS)

form B for teachers previously reported.

[illegible]

by be counted as professional courses.
by the number of recitations a week by the number of weeks in the course and divide by
ester hour equals 1.5 term hours.

Form B

TEACHERS AND SUPERVISORS (INCLUDING PRINCIPALS AND SUPERINTENDENTS)

This blank will be used to list all teachers *not new* to the school this year. Form B1 will be used to list all teachers that are *new* to the school this year.

NAME (List all names alphabetically)	1 Indicate; degree, when granted, institution granting, if no degree, No. semester hours. [†]	*2 No. of semester hours of professional (Education) credits completed	3 Major and minor subjects pursued in college	4 Subjects now teaching	5 Previous Experience		6 Teaching Load		7 Present annual salary
					a. Yrs. in this school	b. Yrs. in other schools	a. No. of daily recitations	b. No. pupils taught daily	
1									
2									
3									
4									
5									
6									

*Only those courses which are certified as education by the institution in which they are taken may be counted as professional courses.

†A semester hour is the credit given for a course having one recitation a week for 18 weeks. (Multiply the number of recitations a week by the number of weeks in the course and divide by 18).

Form C

NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS

BUILDING AND EQUIPMENT

This form properly filled out must accompany all applications of *new high schools* for accrediting. Also, the annual report of all schools warned last year for violation of standards No. 1 or No. 2.

I. BUILDING

1. Building accommodations were designed to care for how many pupils? _____
2. What is the present enrollment? _____
3. Date of construction of original building _____
of important additions _____
4. Cost of building _____
5. How much of building is used for grades below the high school? _____
6. How many floors are used for high school purposes? _____
7. Area of classroom windows equal what part of floor area? _____
8. Method of heating? _____
9. Method of ventilation? _____
10. Is building supplied with running water? _____
with sanitary sewer connection? _____
11. On how many floors are there sanitary toilets for girls?
for boys? _____
12. On how many floors are there drinking fountains? _____
13. If one floor is a basement, what rooms are located there? _____

14. Has the building ample fire protection? _____

15. Indicate the number of each of the following features:

- | | |
|----------------------------------|--|
| a. Auditoriums _____ | o. Home Economics rooms _____ |
| b. Gymnasiums _____ | p. Shops _____ |
| c. Swimming pools _____ | q. Music rooms _____ |
| d. Showers for boys _____ | r. Fine Arts rooms _____ |
| e. Showers for girls _____ | s. Specially equipped Commercial rooms _____ |
| f. Rest rooms for boys _____ | t. Lunch rooms _____ |
| g. Rest rooms for girls _____ | u. Recreation rooms _____ |
| h. Rest rooms for teachers _____ | v. Athletic fields and playgrounds _____ |
| i. Health clinic rooms _____ | w. Indoor toilets _____ |
| j. Library rooms _____ | x. Lockers _____ |
| k. Study halls _____ | |
| l. Recitation rooms _____ | |
| m. Science laboratories _____ | |
| n. Manual training rooms _____ | |

II. LIBRARY

1. Is the library in a separate room? _____
Size of the room? _____

Form C—Continued

2. There are seats in the library for how many pupils? _____
3. Is the library card indexed? _____
4. Is instruction given in the use of library? _____
5. Do you employ full-time librarian, part-time teacher librarian, pupil librarian, or no librarian? _____
6. What is the annual expenditure for books? _____
for magazines? _____
7. Number of useful books in the library: (Do not include texts or government publications)

Literature _____	Historical _____	Science _____
Fiction _____	Reference works _____	Encyclopedias _____
Dictionaries _____	Miscellaneous _____	Total _____
8. How many hours per day is library open? _____

III. LABORATORIES

1. What natural sciences are taught? _____
2. Separate laboratories are provided for which of these? _____
3. Are laboratories equipped with modern laboratory desks? _____
4. Are they supplied with running water and drainage? _____
5. On what floor are they located? _____
6. Are they well lighted and ventilated? _____
7. Are they overcrowded? _____

8. State value of apparatus and supplies provided for each of the following sciences:

Chemistry	_____	\$	_____	Botany	_____	\$	_____
Zoology	_____	\$	_____	Biology	_____	\$	_____
Physiology	_____	\$	_____	Geography	_____	\$	_____
Agriculture	_____	\$	_____	General Science	_____	\$	_____
Physics	_____	\$	_____				

IV. GENERAL EQUIPMENT

1. Estimated value of equipment:

a. Office	_____
b. Gymnasium	_____
c. Athletic fields and playgrounds	_____
d. Health clinic rooms	_____
e. Industrial arts	_____
f. Household arts	_____
g. Commercial work	_____
h. Music	_____
i. Fine arts	_____
j. Maps and charts	_____
k. Visual education	_____

NOTE—Use the back of this blank for any additional information concerning building and equipment which will assist the Association in determining their adequacy.

Form D
TO THE
NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS

It is hereby certified that

M..... holds
the degree....., granted by..... Year..... (and)
the degree....., granted by..... Year..... (or)
term or

..... semester (cross out one) hours earned in this institution and accepted by it from
other institutions.

Also, that h..... term or
..... semester (cross out one) hours in Courses in
Education, distributed as follows:

Course Title	Term or Semester (cross out one) hours
.....
.....
.....
.....
.....
.....
.....

Date..... Signed..... Title.....
Name of College.....
Place

The training as indicated above is hereby approved for the state of..... as meeting
the requirements of the North Central Association in regard to the academic and professional training of teachers
in high schools accredited by the Association.
Date..... 19.....

Signed..... State Committee,
Chairman.....
NOTE—After this blank has been approved it should be returned to the teacher,
High School.....

Form E

Date

Place

To the Commission on Secondary Schools,
North Central Association of Colleges and Secondary Schools.

We, the legally constituted officials of the

High School, State of..... hereby express our official approval of the policies and standards of the North Central Association of Colleges and Secondary Schools. We approve of the application of the above high school for membership in the Association and if given favorable consideration we agree to conform to all standards and regulations of the Association.

Signed:

.....
Board of School Officials.

(This form, properly filled out, must accompany all applications of new high schools for accrediting.)

Proceedings of the First General Session

March 14, 1929*

PRESIDENT EARLY: The programs as arranged for this afternoon and the two half-day sessions tomorrow have been provided by the three Commissions. The program this afternoon is in the hands of the Commission on Unit Courses and Curricula.

I should like to invite the officers of the Unit Courses and Curricula Commission to the platform, Mr. Deam and Mr. French.

The first address of the afternoon will be given by Mr. Milo H. Stuart, of the Arsenal Technical High School, Indianapolis, and his subject is "A Plan to Encourage and Recognize Exceptional Teachers at Work in North Central Association Schools." (Applause)

... Mr. Milo H. Stuart, Arsenal Technical High School, Indianapolis, read his prepared paper, "A Plan to Encourage and Recognize Exceptional Teachers at Work in North Central Association Schools" (Paper No. 1), with the following interpolations:

No 1, p. 1: Some of you here will bear testimony to the plan which existed in some states some twenty-five years ago when we had the examination system. The fact of it is that no one ever passed on the July examination because the county superintendent wanted to encourage us to go on to school and become better equipped. When the August examination came, he had before him the list of teachers who were to be employed in the various townships, and, of course, he could always point out in these lists certain ones who were not suitable to teach school. So when the August papers were graded, the poor ones were graded out, and a few others who were qualified, but did not stand in favor with the employing officials, were graded in. Then the shift was made,

and the schools started.

About two weeks after the opening of school, he would put an article in the county paper calling attention to the dearth of teachers and the importance of young people adequately preparing for the profession.

About that number of years ago a superintendent of one of our average sized cities, who had a strong arm, went into the city system and incorporated a system of examinations whereby only the best could hope to pass it, and then at the mercy of the man making the figures. Through that scheme only the specials were elected. Many people who know that system have often remarked that the school system grew professionally during those years as much, if not more, than in any other equal period of time.

We have passed those days when we get behind a screen and grade out the unfit and grade in the fit. But with those days getting away, we should make sure that we usher in another system which does the work that was done then, does it just as well, if not better, and does it in a more effective method.

You know, the colleges and universities for some time have been requiring us to block our graduates into the group of upper third or upper fourth, and so on down the line, or to rank them beginning at the top. So my plan here is to suggest that we grade our seniors for the benefit of the higher institutions, and, in turn, let us ask them to grade their teacher product so that we may bring our teachers back to the school systems on a basis of efficiency and fitness for the work.

No. 2, p. 3: Unless we unify these two lines of activity so far as the regular teacher in service is concerned, we find the teacher drawn between two lines of work, and you can scarcely hold

*A Stenographic report

a teachers' meeting at the close of the day because somebody has to hustle off and do a piece of work quite largely unrelated to that for which he was employed . . .

PRESIDENT EARLY: I think our program is not so crowded this afternoon but that we can take some time following the presentation of these addresses for discussion and perhaps questions. We will take not to exceed five minutes, if there is any one who cares to make suggestions or ask questions.

If there are no suggestions or questions, the next number on our program this afternoon is to be given by Principal Will French of Lincoln, Nebraska. His subject is "What Place Shall Observation of Teaching and Participation in Teaching Have in the Training of High School Teachers?" (Applause)

MR. WILL FRENCH: Mr. President, this is really a report of the Committee on Professional Training of Secondary School Teachers, which is a committee that, by authority of this Association, works under the supervision of the Unit Courses and Curricula Commission. Some three years ago, I think, this Committee was created and assigned to the Unit Courses and Curricula Commission, anticipating the present functions of that Commission as defined under the Constitution, which makes it, as most of you know, a research commission of this Association.

In presenting this report, and as a background to it, I want to call attention to the original motion which created this Committee.

. . . Mr. Will French, Lincoln, Nebraska, read his prepared paper, "What Place Shall Observation of Teaching and Participation in Teaching Have in the Training of High School Teachers?" (Paper No. 2) . . .

MR. WILL FRENCH: The facts summarized from that Committee report bring just this conclusion: There are 159 North Central Association institutions engaged in practice teaching upon the secondary school level. That was last year when Mr. Colebank made this study, and I am making these figures

on that basis in order to fit in with the study which he made. Of the 159 institutions giving practice teaching upon the secondary school level, 119 filled out the questionnaire which this Committee sent out. Out of that 119 there were 33 who were members of the American Association of Teachers' Colleges. My purpose in referring to the membership in the American Association of Teachers' Colleges will develop in a moment. The other 86 were not eligible to membership, or did not care to assume the responsibility for it.

Now the figures for all the institutions of the North Central Association may be given as follows: In that year, 1927, there were 163 institutions in the North Central Association rated by your Commission on Higher Institutions as Class A institutions. Four out of that group belonged to the American Association of Teacher Training Colleges. In the B group, that is Class B, mainly teacher training institutions (the Commission on Higher Institutions classified them in that way) there are 54, and 50 out of that group belong to the American Association of Teacher Training Colleges.

Many secondary teachers are trained in the Class A schools. A few are trained in Class B schools. But many of the Class B schools are engaged in training elementary school teachers. The standards affecting practice teaching, set by the American Association of Teachers' Colleges, which can be found in the 1928 Year Book of that Association, for its members (and, bear in mind, they influence the elementary teacher training more than they do the secondary) are higher than those voluntarily assumed by non-member North Central schools where most of the secondary school teachers are trained, even though some of this latter group do voluntarily assume those standards.

The standards of that American Association of Teacher Training Colleges, though not necessarily objective, are reasonably specific and regarded as the best standards now in general use. It can be seen from the statements given

above that they do not affect many North Central schools giving training to secondary school teachers. It is therefore proposed that in the interim which must necessarily elapse before the North Central Association can set up objective standards of its own in the field of practice teaching, the standards of the American Association of Teachers' Colleges be adapted and applied by the Commission on Higher Institutions under the powers granted by the Constitution of this Association.

This Committee respectfully invites the attention of the Commission on Higher Institutions to the possibility of improving teacher training in the North Central Association by such action. This action would not be urged so seriously, with respect to the observation of teaching and participation in teaching, did not this Committee believe that facilities for practice in teaching and for observation in teaching are highly essential if an institution is to train teachers effectively.

Its contention is that experience in observation of the work of skilled teachers and opportunity to participate in appropriate phases of the teacher training process under proper supervision, either as a part of their pre-service or in-service training, is one of the most essential elements in the process of teacher training. The opinion of experts, the teachings of educational psychology and the experience of other professions all support the position of this Committee in this respect. It holds the belief that if the North Central Association desires to continue a Committee at work in this field, attention may well be concentrated upon observation of teaching and practice in teaching as the most promising field for the Committee work.

This Committee, therefore, proposes and recommends: 1. That the Commission on Higher Institutions undertake to adapt (and I say "adapt" because I do not mean "adopt"; I mean adapt as necessary to the situation, and as they find it necessary) and apply the standards of the American Association of Teachers' Colleges touching practice

teaching to all North Central institutions training secondary school teachers, until such time as the North Central Association sets standards of its own in the field.

2. That this Committee work be continued under the direction of the Unit Courses and Curricula Commission, but with a reorganized committee more widely and ably representative of the institutions comprising the North Central Association.

3. That the business of this reorganized committee be to undertake to set up objective standards in the field of teacher training in general, but more especially in the field for judging adequate facilities for, and effective programs of observation of, teaching and participation in teaching, for the use of this Association in making lists of schools which may properly undertake the professional training of secondary school teachers. The Commonwealth Study referred to before, makes committee work in this field very promising. The task is to determine what conditions must obtain and what facilities must exist in order that student teachers may best learn how to do those activities of teachers most frequently performed and most difficult to learn, which can be learned through practice under supervision. A subordinate task would be to determine for which of these activities pre-service training is practical and which would have to be learned during in-service training.

4. That this reorganized Committee be empowered upon behalf of the North Central Association to endeavor to enlist the interests of the Bureau of Education in its work, with the object of inducing the Bureau to aid in financing this work from funds now available to that Bureau for research in secondary education.

The Committee is composed of L. W. Brooks of Wichita, Kansas; H. H. Ryan of Ann Arbor; M. H. Stuart of Indianapolis; F. L. Bacon of Evanston; G. W. Willett of La Grange; F. E. Henglich of Lincoln, and the Chairman.

I move the adoption of the report of the Committee. (Applause)

PRESIDENT EARLY: You have heard the recommendations of the report. What is your pleasure? In interpreting the request, I have just asked Mr. French what that would mean as far as Association procedure was concerned. He said it would simply mean the matter of the general Association recommending this to the Higher Institutions Commission for consideration.

... The motion was regularly seconded ...

PRESIDENT EARLY: Is there any discussion?

... The question was called for, was put to a vote and carried ...

PRESIDENT EARLY: I called for discussion previous to the adoption of Mr. French's report, and I was considerably surprised that there wasn't some comment on it, or some discussion or questions about it. It was adopted, and we will so consider it, but I am again extending to you the privilege and opportunity for discussion of this paper, if you care to have it.

MR. JOHN E. STOUT (Northwestern University, Chicago, Ill.): Mr. Chairman, in connection with this very concise and, in my judgment, very fruitful paper, I want to raise the question as to whether we now have reached the time when we will pay very much less attention to the quantitative requirements professionally and more attention to the qualitative.

By way of example, I think that the bill before the Illinois legislature, if it becomes a law, will secure improvement in the preparation of teachers. Yet, in my opinion, it isn't very significant to change from twelve semester hours to fifteen. But that isn't significant as compared with a requirement that has to do with quality. I think we may say the same thing in the field of the academic subjects. Some states are now beginning to make quantitative requirements, and I grant you that that is better than not making any requirements at all. But, after all, folks, we haven't said very much when we say that a

teacher of English, a prospective teacher of English must have had twelve or fifteen or twenty hours of English of one kind or another. We have only made that requirement significant when we say the kind of English we want them to have if they are going to teach in the secondary schools. In my opinion, this Association could render a great service by stimulating, on the part of those who employ teachers, the disposition to make those qualitative requirements clear.

I tell the young people who come to see me now and ask me what they must do in order to get a certificate, that they are not asking the most important question that should be asked; that most people now take it for granted that anybody who applies for a position will have a certificate and will have met the requirements; that there are two questions that are far more significant than that, and the first question is as to how well they are prepared to enter upon their work, and the second is how much contribution that will make to them in making progress in their work. I tell them that those two questions are very much more significant than the question, "Will this program get me a teacher's certificate?"

Out among the young people who are preparing to teach, so far as I know, they are interpreting the North Central standards wholly in terms of quantity. They come to me and say, "The North Central Association requires fifteen hours of education."

"Yes, that is right." So they will pick up fifteen hours of almost any kind and feel perfectly satisfied. We all know, folks, that we have been rather liberal in our institutions about calling things "education." We all know that certifying bodies accept the statements of higher institution bodies concerning whether a student has had twelve or fifteen or eighteen or any other number of hours.

The emphasis upon practice teaching and observation goes to the very heart of this thing, because that does have to do with quality. There must always

be quantity, I grant you, in connection with quality. It does make a difference, I suppose, whether a teacher observes thirty days instead of twenty, or teaches forty lessons instead of twenty-five. That does make some difference. But, after all, the difference comes out of the kind of observation they do, of what they observe, and how intelligent they are, and what direction they have been observing, and also the kind of experience they get out of the practice teaching.

So may I emphasize what in my own mind is of very great importance, and that is with respect to practice teaching and with respect to courses in education, and also with respect to courses in academic subjects, that as soon as possible we do all we can to stimulate and to direct those who employ teachers, in making their requirements upon these institutions stated in terms of quality as well as in terms of quantity. (Applause)

PRESIDENT EARLY: Is there further discussion? If not, we will then proceed to the third address of the afternoon, to be given by Professor Webb of Northwestern University on the subject, "The Committee's Report on Qualitative and Quantitative Standards for Use in the Reorganization of Secondary School Curricula." (Applause)

MR. L. W. WEBB: Mr. Chairman, Ladies and Gentlemen: In 1924 this Committee presented a rather brief printed report of its procedure, and a partial outline of its pattern on which it was working, of the qualitative standards for use in the reorganization of secondary school curricula.

In 1927 we printed in the March issue of the Quarterly a rather full statement of the qualitative analyses of the objectives of secondary education as worked out by this Committee. We also presented at that time the reports of several subcommittees that had analyzed the various subject matters of their respective subjects in the light of these objectives set up by this Committee.

We did the same thing in the March Quarterly of 1928, emphasizing to a

very large extent the reports of the subcommittees on the various subjects taught in the high schools. Those subjects, analyzed in the light of these objectives, have thus far included English, French, Latin, general science, biology, physics, chemistry, German, Spanish, agronomy, music, art, extra-curricular activities, social studies, home economics, physical education and mathematics.

This year you will find the report of our Committee published in the March issue of the North Central Quarterly, which many of you have in your hands, beginning on Page 537 and ending on Page 614. That report is in three parts. The first part is a brief summary of the pattern on which this Committee has been working. Unfortunately, for some reason which I do not know at the present time, the vocational ultimate objectives was omitted from that summary in the general report.

The second part of this report has to do with the report of the Subcommittee on Extra-Curricular Activities. Anyone who deals with that topic readily recognizes the complexity of his problem. This committee has worked at a very difficult task. They have devoted an enormous amount of time and effort to the accomplishing of this task. They have proceeded a little bit differently from these other subcommittees, due to the enormous complexity of the problem with which they were dealing.

They have analyzed, or organized, rather, their extra-curricular activities into the various types. When one looks at that report, and if they look only at that, they will not see the relationship of that part of the report to this pattern of qualitative standards which this Committee has set up.

But in the latter part of their report you will find that they have done something that is a little bit different, and yet because it is different, I think it is a distinct contribution of this Subcommittee on Extra-Curricular Activities.

They have worked out a key which any group of people concerned could use and rate these various types of ex-

tra-curricular activities, to show how significant they thought they or the various aspects of them were in contributing to these various objectives which this Committee has set up.

You will find printed in that report several pages dealing with an experiment where a group of people interested and concerned with the matter took this organized body of material of this Committee and passed judgment upon it to show what they thought, or how much they thought each of these various activities would contribute to these various objectives set up by this Committee.

The third part of this report is concerned with the quantitative standards. Up to this point, in our past reports, we have referred only to the quantitative standards, recognizing their significance, and, as you are aware, this Association appointed several years ago a Committee on Quantitative Standards which was eventually merged with the Committee on Qualitative Standards. This combined committee has insisted all along that we could not set up quantitative standards without first setting up qualitative standards. We have devoted a larger part of our efforts to the setting up of these qualitative standards, and analyzing the various subject matter in the list of these qualitative objectives, showing how this illustrative material could be used in the carrying on or in the accomplishment of these objectives.

The Committee has also insisted that it would not be possible to determine quantitative standards by the same process that we have accomplished or set up these qualitative standards. We have set up the qualitative standards by the process of subjective analysis of this Committee. We think it will be necessary to determine quantitative standards on the basis of actual experimentation.

In dealing with that phase of our work we decided it would be better to take some subject matter that was rather definite and limited and fixed, analyze that into certain units and test out in some high schools under the careful observation of some individual, to determine the

quantitative aspects of our Committee. Mr. Hurd of the University of Minnesota has been the man who has directed this experiment. He frankly admits and insists that this is only a beginning of the experiment, that the work is in no sense final. But it is at least a serious effort to determine experimentally the quantitative aspects of our problem. These units have been taught under these various conditions, and tests have been made and administered to discover to what extent, as far as that is possible with the instruments used, these qualitative objectives can be accomplished.

We are hoping, and our plans are laid to that end, that we might carry on this experiment much more thoroughly this coming year so that we might have a much more adequate report on the quantitative side of our work a year from this time.

Mr. Hurd has already laid those plans. We are hoping that other subjects may be analyzed into units and tested out under experimental conditions to determine the quantitative aspects of the problem.

I should like to call attention to the name of this Committee, for emphasis of a certain aspect of our work. It is a long name and I am afraid sometimes that some people do not remember it. I myself have to look it up and read it occasionally to keep it in mind. "Report of the Committee on Standards for Use in the Reorganization of Secondary School Curricula." The thing I want to emphasize is *for use*. This Committee did not set up these standards for the mere fun of having mental activity and making certain analyses, but with the fond hope that ultimately they would be used in reorganizing secondary school curricula.

I stated to you before this Association last year that we had sent out letters to practically all of the principals of the high schools of the Association asking their cooperation in getting before the teachers of their various subjects, the work of this Committee. I want to thank you heartily at this time for your cooperation in that matter.

The report comes from Mr. Davis, Editor of our Quarterly, that the Association now has \$700 net profits from the sale of the reprints of the reports of this Committee, which shows that they must have been bought in rather large quantities over a wide area, and they sell for anywhere from ten cents up to as high as fifty cents.

There is one other thing we are concerned with, not that these reports will simply get into the hands of the teachers, but that the teachers may actually study them and make use of them in reorganizing their curricula, for the purpose of teaching them to accomplish these qualitative objectives which this Committee has set up. We had some evidence this morning in the meeting of our Commission, that that thing is happening. Miss Lura Blackburn of the Oak Park High School reported to our Commission how she had taken these qualitative objectives, studied them very carefully and thoroughly, and then applied them to the selection of the subject matter of English, and showed how she had tried to accomplish those objectives in the teaching of the subject of English. I stated in that meeting, and I am glad to state it here again, that that is the most heartening thing I have had happen to me as Chairman of this Committee since I have been serving in that capacity, which has been for several years. It makes us realize that what we have wanted to happen is beginning to happen, that these reports would ultimately affect the actual class-room procedure and practices in the secondary schools of this Association.

If they do not accomplish that, then all this time and effort and money in meeting of committees and printing of reports is wasted. What we should like to see is a number of other people doing the same sort of thing that Miss Blackburn has done. If any particular teacher is interested in that, or if a principal has a teacher interested in that, our Committee would certainly appreciate your calling our attention to it. If we can cooperate in any way to further that work in your school, we shall be more

than glad to do so.

At the meeting of our Commission this morning they passed a motion that this Committee be asked to frame a questionnaire or an instrument of some kind, to determine to what extent these reports of this Committee are actually being used in the high schools of this Association. It was not my desire, it was not my notion to inflict the principals of high schools of this Association with another questionnaire. But you have cooperated so kindly and to such a large extent in disseminating this information to the teachers, that I am asking you again to cooperate with us in furthering this side of our work, that we may get some sort of a check upon the extent to which these activities of this Committee are actually affecting the class-room practice.

This, Mr. Chairman, constitutes the report of our Committee, and, if it is in order, I would move the acceptance of this report by the Association. (Applause)

PRESIDENT EARLY: You have heard Mr. Webb's motion. Is there a second?

. . . The motion was regularly seconded, was put to a vote and carried . . .

PRESIDENT EARLY: I should like to add just a word, Mr. Webb, to the evidence that you submitted of the demand for the courses of study for the specific subjects which this Committee set up. I happen to know that in each of these subjects there were, I think, originally 1,000 copies of the reprints, and in many of those subjects that list has been practically exhausted. So to say that we had a net profit of \$700 does not tell the whole story. I cannot tell you at this moment the entire amount that we got from the sale of those, but it runs, in my mind, something over \$2,000, which tells you a little bit more of the demand for them.

Realizing the demand that probably would come for your last report, the Executive Committee last evening ordered 1,000 reprints of this report on the extra-curricular activities. As a matter of evidence, I take pleasure in submitting that, and I am sure there are those

here who will want reprints of the extra-curricular activities report. I am making an announcement on that account.

We will proceed to the final address on this particular part of the program, which is to be given by Dean Stout of Northwestern University, on the subject, "The Point of View in the Development and Interpretation of Standards for Use in the Reorganization of Secondary School Curricula." (Applause)

MR. JOHN E. STOUT: Mr. Chairman, Ladies and Gentlemen: I was placed upon this program by the use of methods of violence. The Committee had a meeting some weeks ago and I was late, and when I arrived, I found that they had already passed a motion that I should undertake the very easy task of interpreting to this Association the work of this Committee.

. . . Mr. John E. Stout, Northwestern University, Evanston, then read his prepared paper, "The Point of View in the Development and Interpretation of Standards for Use in the Reorganization of Secondary School Curricula," (Paper No. 3) with the following interpolations:

No. 1, p. 1: I had a person say to me the other day, "I have just read these objectives over and there isn't anything new." We didn't intend there should be anything new. But here are objectives that we have been talking about for a long time. We stated them in one way or another. This Committee has only undertaken to take those objectives and to apply them for the purposes intended.

No. 2, p. 2: By the way, ladies and gentlemen, that is one of the rather disappointing things to any student in education. If we go back over the reports of committees through the years, beginning with the Committee of Ten, and coming on down, and then if we turn to education practice to ascertain what change, if any, and what kind of change has taken place as a result of the accepted reports of these committees, we suffer great disappointment.

No. 3, p. 7: At this point I should like to make an informal comment. One very interesting thing in the work of this Committee has been to discover the

strains that have arisen in attempting to use these criteria with respects to certain subjects and subject matter. Somebody would say, "This subject matter doesn't fit in," and the answer of the Committee was, "Well, all right, then. One of two things will have to be done. Either that subject matter will have to be rejected or else you will have to get other kinds of criteria for measuring values."

It can be said further that this Committee at no time has claimed or felt that all wisdom is centered in Jerusalem. We have conceded, and very freely so, that other approaches to curriculum reconstruction might well be undertaken, but we have insisted that in the work of this Committee we would use these objectives to the logical conclusion and find out what would actually happen.

In some cases this is what has happened: When the strain would arise, the persons would begin to ask the questions about their subject that Daniel Webster asked about himself in the convention that was called, where a motion was passed to disband the Whig Party, and Daniel Webster got up and said, "If you disband the Whig Party, what will become of me?" Not knowing just what would become of Daniel, that motion was not passed.

As a matter of fact, this Committee has not been so concerned with the question of what will become of the subject. Then the tendency has been, in some cases, on the part of members of the Sub-committee to restate some of the objectives in such a way that the material would fit in. We haven't any sort of complaint with that sort of practice outside the Committee, but within the Committee we have been insistent that these objectives be carried forward, as I say, to the logical conclusion. That is the only way to test them out. Then anybody is perfectly free to take another set of objectives and to use that set of objectives in any way he may please . . . (Applause)

(Other proceedings of the morning were reported in the Quarterly for March 1929—The Editor.)

The Banquet Session of the Association* Thursday Evening, March 14, 1929

PRESIDENT EARLY: If time would permit in introducing our delegate-guests, we would be happy indeed to extend to them unlimited time for their remarks, but the length of our program forbids. So I am going to ask them to limit their remarks to the Association.

It was my privilege this year to be the delegate of this Association to the Southern Association at Fort Worth. I shall never forget the many courtesies and the hospitality that were extended to me while there. I am very happy that we can reciprocate in those courtesies this evening. I am very happy to introduce to the Association, Mr. W. L. Spencer who is connected with the State Department of Education at Montgomery, Alabama. (Applause).

MR. SPENCER: Mr. President, it is my very happy duty on this occasion to give to you from the greatest association of colleges and secondary schools in the Southern States our very cordial regards and feelings of brotherhood. We wish to congratulate you upon the fine accomplishments you have made. We have great admiration for the work you have done and for the work you are doing, not only for education in your own states, but education the country over.

We have reaped much from the visits which your delegates have made. I feel very humble when I compare myself with the line of delegates who have come to us, your President, Mr. Edmonson, Mr. Davis, and the man whom we have considered sort of dean or Nestor of all of our high school problems, Mr. Elliff. They have been of great value to us.

We are making some progress in the South in our work of colleges and secondary schools. I think I can report one fact which seemed to us worthy of his-

torical record. For three years, so far as I know, not a single man has talked about Mark Hopkins and the log. (Laughter) As an alumnus of Mark Twain's college, I wish to protest, and have tried to protest against the undue emphasis upon the log and the failure to consider the pupil-teacher in that case. (Laughter)

We in the South hope you are not going to govern all your thinking of us by the statements of our friend Mencken. We are not sure that we object strenuously to being dubbed "The Bible Belt," but in our allegiance to the Klan we are glad to take our place far down the line behind some of the good states of the North Central territory. (Laughter) The Klan is fast fading from the picture in the South, and the hard, metallic K's are giving way to the softer, brighter C's, civilization, culture, Christianity.

I really feel more like a visitor coming back home than a delegate from the Southern States. Nine years ago I went to the South from Ohio, and I wish I might speak to you not as a delegate or as a native son of the South, but give some observations of the South. I must not take more than a minute, but I wish you would remember that the South has its eyes more to the future than to the past. The South is proud of the traditions of seventy-five years ago, the ideals of chivalry, of refinement, of hospitality, of culture, and those are not all lost. The best of those still remain, and they will remain, and I thank God for it. But their eyes are upon the future. The Greater South is coming. We are growing industrially and economically, but, greater than that, we are growing spiritually; we are growing culturally and aesthetically.

When our golden age comes, and it will come soon if we educators do not fail upon our job, some of the gold will come from the South. The South is not

*A stenographic report of certain informal addresses, delivered by Messrs W. L. Spencer, G. E. Hug, and F. P. Keppel, delegate-guests.

the only part of the country interested in these fine cultural and great things, but I believe the South will do a little more than any other section of the country in art, in beauty, in refinement, and in chivalry.

The South is great in its promise and great in its history. I wish to ask you to consider sympathetically the fine promise, the fine ambition of our Southern States. (Applause)

PRESIDENT EARLY: The delegate from the baby of the regional associations which, as I understand, was the last organized. I take pleasure in presenting Mr. G. W. Hug, who is the Superintendent of Schools at Salem, Oregon, as delegate from the Northwest Association. (Applause)

MR. HUG: Fellow workers, I think all that Mr. Spencer said I could say too about the great Northwest, the Pacific Slope and the great inland empire. It might be appropriate that I should come here, perhaps, dressed as a Westerner with a cowboy hat, with spurs, with chaps, and things of that sort, as our Governor did one time when he came east. But I want you people to realize that we are partially civilized out there as it is. (Laughter)

You know, I have had a good time here. I have enjoyed meeting you men. I have enjoyed seeing you work, and some of you work hard. I have enjoyed the way you have tackled your problems, and the way you speak your mind, and the way you meet your situations, regardless of personalities. I haven't seen a fourflusher here. There may be some but I haven't seen any. (Laughter)

I am from Oregon; I am from Salem. As Mr. Hanna said last night, it is the city of peace. We didn't get our name from Salem, Massachusetts. We got our name from what the Indians called Salem, Chemekete; Chemekete means peace, and Salem means peace. So if you are ever out in the far West I hope you will stop at Salem and see us.

Oregon has a history. When I speak of Oregon I speak of the Oregon Territory. Undoubtedly, as you recall from

your history, the Oregon Territory was more than what the state of Oregon is now. The Oregon Territory was composed of the present state of Oregon, Washington, Idaho, and parts of Montana and Wyoming.

This great country has a record. You notice that in the West and on the coast I haven't included California. I don't know whether there are any Californians here, but in California they refer to Oregon and Washington and the northern country as the country up north. We hope some day that California will come into our association. California is really the junior member state on the Pacific Coast. Oregon was settled by the American people—I say American people—before California. (Laughter) And California wasn't an American state or territory until after the gold rush, until after the Oregon pioneer went down to California and discovered the gold and developed the country for them. Previous to that time California was inhabited by Mexicans, Indians, and sailors who deserted their ships to have an easy living. You know, I can talk that way out here. (Laughter) I couldn't do it if I went below the 42-degree latitude, and I am going down there this summer. I hope none of you will report it back because a good many of our school men go to California. They pay better salaries down there, and are supposed to have better schools, and all that. So we are sort of reforming their educational system, the same as we developed it.

But we in the Oregon territory are American people. The country was settled by the pioneers, the pioneers from the East and from Middle West. They endured hardships. The Oregon country wasn't a part of the Louisiana Purchase, as some of you might think it was, but the Oregon country was disputed between the British and the Americans. Along about 1843 it was undecided whether the Oregon country should be British or whether it should be American. So they had a convention, a provisional government. Men came from miles; men spent days and weeks coming to what was known as the provisional

capital, the town of Champoege, a French name. When the great pioneer, old stalwart Joe Meek, called for a vote, the vote stood 52 for the United States and 50 for the British, and Oregon was saved to the country. (Laughter)

We believe that we are a people of courage and fortitude and intelligence, and all those finer traits that make men. We also have, in addition to that, a spirit, an idealism that causes us to look to the future. We are not an old state, but we are not a new state in the line of education. The pioneers had the vision. The first thing they did was to inspire the Indians. The Indians asked for spiritual guidance, and that was the mission of the pioneers of that time. Jason Lee and Jesse Applegate, and all those old pioneers that we think so much about, came over, and the first thing they did was to establish schools.

We claim we have the oldest institution in Salem, Oregon, of any institution west of the Mississippi River, in Willamette University, established as Oregon Institute in 1841. We may not be the oldest but we are pretty close to it. In 1841 Oregon Institute was established, and afterwards developed into Willamette University.

Ohio always boasts of its many small colleges. They haven't nearly as many as we have because we have a small college in nearly every town. We haven't the junior college, but we have the institutions established way back in pioneer days.

I want to thank you for your attention. I want to bring greetings from the great Northwest. We are a baby institution. We are following your example. We have adopted your standards, practically the same language, and we hope that you will have a delegate with us. I am certainly going to take back a message to my people of the fine spirit and the fine hospitality that you have shown me at this convention. I thank you. (Applause)

PRESIDENT EARLY: Arthur Brisbane said that we should thank God that we had men in institutions that could do for us what we could not do for our-

selves. We have as an honored guest on this occasion the president of one of those institutions. I have the honor of introducing to this Association, President Frederick Keppel of the Carnegie Corporation. (Applause)

MR. FREDERICK P. KEPPEL: Mr. President, this discussion seems to me to have taken, thus far, what might be termed a regional term. (Laughter) I don't know whether the other two visiting firemen, Mr. Spencer and Mr. Hug, know the regional term that is coming to be applied to the part of the United States where we now find ourselves. I understand that it is now coming, for purposes of convenience and brevity, to be known as the near east. (Laughter)

I have had a pretty long acquaintance with the North Central Association, perhaps as long as that of most of the men in this room. I think I can say that I was brought up in the fear of the Lord and of the North Central Association. (Laughter and applause) Because in those early days I was a member of the Association of Colleges and Preparatory Schools of the Middle States and Maryland. I think I might, as an ex-president of that organization, take it upon myself to convey our regional greetings on this occasion, (laughter) while I was not instructed so to do.

I was at that time a college officer, a secretary, and then a dean in the university. I don't think we were suffering from what is now known as an inferiority complex, but as I look back I don't believe either that the North Central Association could possibly have been, good as it was, as good as we thought it was. (Laughter)

But, quite seriously, the courage and initiative and energy with which this Association tackled the problem, a problem so sorely crying out for attention at the time to decent and honest standards, did enlist the admiration of the whole country.

Well, looking back, after having left respectable academic life for a number of years, one perhaps observes these things from a somewhat different standpoint. For one thing, I now have my

own children in school and college, and that makes a difference. (Laughter) For another thing, I have joined the race—by that I mean the representatives of these foundations—that is known in our part of the country as “philanthropoids.” (Laughter) I am told by some of my classical friends that the Greek isn’t what it should be, but everybody understands what it means anyway. (Laughter)

I am wondering, from this new point of view, whether the time has come for a study and analysis, perhaps, of just what standards can do and what they can’t do. We have, for example, in the study of medicine a very interesting objective consideration. There is a great branch of education that has been literally revolutionized by the application of progressively higher standards, largely the external application. I don’t suppose there is any branch of education where there is a greater difference today from what there was twenty-five years ago than in the teaching of medicine. And now the leaders in that profession, the men whose own standards can’t possibly be in question, are saying that what medicine needs is freedom, freedom for experimentation, freedom for the student, freedom all along the line. The people who are saying that are not the people who are afraid of standards.

One thinks also of a difference which we find, each of us I think, in our own lives and in the lives of those about us, who thinks of the distinction between standards imposed from without and standards self-imposed. I think the question arises as to whether we shouldn’t look forward to the gradual transfer of that responsibility for doing the right thing from the outside to the inside. It is not an easy thing, human nature being what it is, but that may be, and I think that will be, the next step.

Those of us that have had to do with colleges have watched the gradual disappearance of rules, and I don’t think it has been accompanied by a gradual fall in the standards of student conduct. It is quite the contrary. I have, in the ex-

perience of the foundation that I am connected with, a rather amusing example of just what standards raised to the nth power and administered to the ultimate will actually bring about sometimes.

When Mr. Carnegie was distributing, in his characteristically generous way, library buildings all over the country, his advisers felt that in the small towns where the libraries were being erected there probably wasn’t the professional knowledge that would insure an adequate building for the purpose of library work. So as a condition of the gift, certain definite, rigorous, uniformly applied standards were imposed. By and large, that probably was a very good thing. But some years afterwards we sent a man to visit these libraries all over the country to see just how the whole thing was going. Among the towns which were visited was the town of Calexico in California, on the Mexican border. It was found that though the people were very proud of the library, they couldn’t use it unless the blinds were drawn and the readers had green shades over their eyes. The amount of fenestration which was imposed by our conditions, made that place just exactly like the inside of a greenhouse.

Another thing I have been thinking about, since you are good enough to ask me to speak tonight, is whether this fine leadership, this honest courage that your Association has shown throughout its whole history might be extended to the advantage of us all into other fields. I am going to make just three suggestions. They probably aren’t the most important, but they are the ones which have been brought rather forcibly to me in my own experience.

In the first place, the library as an instrument of education is assuming, as we all know, a greater and greater significance. We find it expressed, for example, in the building program of a city like Omaha where the library is to be practically the center of the school building. We find it in the legislation here in Chicago. We find it in the minds of all the more progressive college presidents and deans.

The new situation which I think we all see approaching is one that is going to require very good, solid, honest thinking, because it is going to be the clash of two professional groups. I think I can say truthfully that so far as I know the situation, the librarians as a group are better prepared to meet it. They have thought farther into the question than the teachers have. I should like to offer that as a possible problem for the consideration of this Association. Just what do we mean? How are we going to fit in the extended use of the library to what we are already doing? How is it going to work out in time schedules? How is it going to work in the budget? How is it going to work out all along the line?

I have another suggestion. I think the most striking change in our whole cultural life in the last ten or fifteen years was, without any doubt, the increasing interest in the fine arts. There is no question as to the interest and enthusiasm of the students themselves, both in school and in college, and their willingness to take all they can get. There is no question as to the apostolic devotion and enthusiasm of the teachers in the art field. I think there is a good deal of question as to whether the administrators and teachers in schools and colleges are thinking through their problems of the adjustment that must come to make the provision which the public is going to demand, both in school and college, for the fine arts.

There again will be a question of adjustment, experimentation, all sorts of things. It is those who are not concerned with the fine arts who will have to make a very considerable amount of that adjustment and experimentation. I should like to see the leadership of this Association applied to that problem.

Then, the third and last of my suggestions is this: In the set-up of this Association and of the other regional associations, there is a tendency to make provision for the secondary school as we ordinarily understand it, what we used to call the preparatory school. In other words, we are thinking in terms of

the students going on into the college or university, as a great number of them, of course, do. But in both the school and the college, we bewail the number of misfits. It seems to me that we are leaving in utter darkness the one agency that is most likely to be able to look after the young folks whom we regard as misfits and who have something that is worth saving in them. I refer to the non-degree-granting vocational schools, such institutions as Pratt Institute in Brooklyn, for example, and you can all think of others. I think that is a very much neglected area in our educational matter.

It was brought home to me very forcibly a year and one-half ago when I spent the summer in South Africa. It is a very good thing for a man to get away from his own environment and see what reasonable human beings are doing elsewhere. There are good universities and there are good university colleges in the different provinces of the Union of South Africa, about as good as anything you find under the British flag. But the real educational life, the real wallop in that country, lies in what are called the technical colleges. They don't grant degrees. They are not standardized in terms of the Cambridge matriculation which hangs like a pall over South Africa. They work out their own line and fit into the needs of the community. I think it is fair to say they are the most vital part of the whole system there. None of them grants degrees. None of them fits into any particular form. They are thinking of the student and what they can do for him, and of the community and what they can provide for it.

I should very much like to see some great regional body take some cognizance of those non-degree-granting institutions, and bring them into the family. I will very much miss my guess if we don't find that in so doing we will be providing for some of these square pegs which we now are trying, with none too great success, to hammer into round holes.

If the Bibles which are so generously

provided by the Gideons in hotel rooms had concordances, I could quote a text of Scripture to you. (Laughter) As it is, I can only call it to your attention, and I think you can probably quote it back to me. At least I trust so. It has to do with the urging on the part of the writer to do certain things but not to leave other things already mentioned, undone. All these things that I say are not for the purpose of heading you off from the work you have selected for yourselves, and which you have done so outstandingly well in the matter of what we might call maintenance of educational honesty, but there are other problems which are pressing upon us all, and more and more closely. With the energy and the competence you have in this Association, I think you can do all of them.

Mr. President, I didn't think that I should ever live to see the day when I

should stand up and lecture the North Central Association, (laughter) and my only excuse for doing so is because of my belief in its almost unique responsibility and power and sense of public service.

I thank you very much. (Applause).

PRESIDENT EARLY: President Keppel, we enjoyed your lecture.

The concluding number on the program I should like to apologize for, but the only reason for inflicting it upon you is because of precedent. I can assure you, however, that it has one commendable quality, and that is brevity. I have taken for my theme on this occasion "Retrospect and Outlook."

. . . President Early then read his prepared paper, "Retrospect and Outlook," which appears elsewhere in this issue of the Quarterly.

A Supplement

The name of G. W. Willett, Lyons Township High School, La Grange, Illinois, has been inadvertently omitted from the list of members of the Committee on Standards for Use in the Reorganization of Secondary School Curricula. It should be added.

Retrospect and Outlook*

By W. I. EARLY,
SIOUX FALLS, SOUTH DAKOTA

I regard myself fortunate indeed to be able to give my address at the close of my administration instead of the beginning, thereby avoiding the necessity of having to live up to it.

First of all may we briefly look backward over the thirty-six years of the association's history in order that we may properly evaluate what has been accomplished and in order that we may renew our appreciation of those who have contributed so unselfishly and efficiently to the building of this great organization.

Before engaging in the recitation of fact, may we first use our imaginations in what must have been the fundamental origin of the association. There must have been a felt need for greater educational efficiency and this, coupled with initiative, furnished an occasion for the American genius for organization to again manifest itself. Dean Martin says that "this genius has given us such prestige as we enjoy among the nations of the earth. Ours is the land of the Woolworth Building, the Ford factories, the Anti-Saloon League, Rotary, the Ku Klux Klan and the College Cheer Leader. In organization there is power and there is efficiency, as seen in the success of our industries, labor, politics, morals, education, religion, charity; all have followed the same course. In fact, we gain recognition in this country only by virtue of membership in some organized group. That which remains unorganized is lost. Without a chairman, a committee, an executive secretary and a press agent, human interest can not survive." Shall we not conclude therefore that the North Central Association must have been thus born.

Now as to facts:

At a meeting of the Michigan School Masters Club, held at Ypsilanti, December 1, 1894, a resolution was offered and adopted, that the presidents of the Universities of Michigan, Wisconsin, Northwestern and Chicago be asked to unite with the Committee of the Club in issuing a call for a meeting to form an association of schools and colleges in the North Central states.

The invitation was sent out signed by President James B. Angell, Univ. of Michigan, Henry Wade Rogers, Pres. Northwestern University, C. K. Adams, Pres. University of Wisconsin, William R. Harper, Pres. University of Chicago, W. H. Butts, Prin. Michigan Military Academy, W. A. Greeson, Prin. Grand Rapids High School, and R. S. Boone, President of the Michigan Normal School. In response to the call thirty-six leaders of education from Ohio, Michigan, Indiana, Illinois, Wisconsin, Iowa and Missouri assembled at Northwestern University on the morning of March 29, 1895. The organization was perfected by the adoption of a constitution and election of officers.

The object of the association, as declared by Article two of the constitution, was to establish closer relations between the colleges and the secondary schools of the North Central States. Thus it was hoped to advance the cause of education by eliminating the gaps and making it more of a continuously advancing process from the beginning of the secondary years throughout the college career.

The first annual meeting was held at the University of Chicago, April 3 and 4, 1896. I shall quote passages from the address of President R. H. Jesse, University of Missouri given in that pro-

*An address delivered before the Banquet Session of the Chicago meeting, March 14, 1929.

gram because they deal so specifically with what was to be, and from this end of time has been the outstanding policies and considerations of this association. He said:

"The private schools, adapting themselves so far as possible to the colleges, have had little influence upon requirements for admission to the freshmen class. On the other hand, the public high schools, aiming primarily at preparation for life, have been and are still forcing colleges to revise materially their entrance requirements. In this way the masses of the people are compelling our institutions of higher learning to greater breadth and liberality. May the process go on and by going gather strength."

* * * * *

"In my opinion it is highly important to teach carefully the duties of life that arise from its greater relations—such duties as come from the relation of parent and child, husband and wife, neighbor, citizen and municipality—citizen and state, corporation and general public, etc.—I do not forget that in teaching punctuality, regularity, order, industry, good behavior and the facing of recurring responsibilities our schools are already cultivating the very roots of morality."

In these utterances we have the foreshadowing of the social direction which education has taken since that time.

In defining a college he says: "It is an institution for academic instruction based upon the secondary schools. To secure unquestioned recognition a college must have at least these things:

1. Respectable requirements for entrance to a Freshman class; 2. Courses of study well arranged four year's long, and embracing Latin, Greek, French, German, English, mathematics, history, political economy, philosophy, physics, chemistry and biology; 3. At least eight good instructors, six of whom devote their whole time to teaching in the Freshman and higher classes the subjects named above; 4. A good library and suitable buildings, including three laboratories well equipped, at least for under-

graduate work, in the sciences named above; 5. Income enough to maintain well the instruction and equipment." In discussing these several requirements, he says: "No institution can maintain itself which does not do more than meet minimum conditions. Even in determining the number of necessary teachers, some margin should be left for the inevitable presence of the feeble minded."

* * * * *

"I would require of all for entrance to college three years of English, three of mathematics and two of history, then I would arrange the other units to be offered in groups for the A. B. the Ph. B., or the science course. I would take care also that the total amount offered should not be distributed over more than a half dozen different subjects."

Regarding entrance examinations he said, "I have little respect for examinations conducted by people that have no personal knowledge of the students. The people who can but measure the attainments of the student in knowledge and in power are his teachers in secondary schools. I therefore believe that it is far better for the colleges to satisfy themselves respecting these schools and to accept without hesitation the judgment of such of them as can be safely approved."

* * * * *

"The first two years in college are really secondary in character. I always think of the high school as covering the lower secondary period and the Freshman and Sophomore years at college as covering the upper secondary period. In the secondary period, and in at least the Freshman and Sophomore years of the college, not only are the students almost identical but the character of the teaching is the same. The chief function of the instructor is to teach well what has been discovered and arranged and thereby to form mind and character. Naturally such instructors would have fine opportunities to write text books. Original research, while not denied them, is a subordinate end. With the real university professor, on the contrary, the chief aim should be to teach method of original

investigation and to employ them in actual research."

* * * * *

"If we are to enjoy the best results in the college, and also in the university, greater attention must be paid to the professional training of teachers for these institutions. In our academies, colleges and universities such studies are regarded generally with indifference and sometimes with contempt, and it is not yet thoroughly recognized that there is really a science of education. We cannot hope for the best results throughout our educational system until some knowledge of the science of education and of the theory and art of teaching are required of every applicant for a position as teacher everywhere."

Thus the plans which were to take direction through the years were given prophetic utterance. Time will not permit me to review the details of how the association achieved its ends nor to recall the lives of those men who have not only been the backbone of the North Central Association but who also have been among the most prominent leaders in national education. Except for their vision, loyalty, and untiring energy this organization would long since have passed out of existence.

Our deliberations and decisions have not always been answered by a vote of thanks. Individuals and institutions have temporarily resented having their composure disturbed but with the invariable ultimate conclusion that the disturbance was a blessing in disguise. The standards of the Association have been the leverage by which institutions have become better endowed, better tax supported, better teachered and better equipped.

High schools have complained at times of college domination and yet I wonder where the high schools would be today if it had not been for the demand of the higher institutions. Both institutions have exercised a mutually salutary effect upon each other. The battles that have been waged were more in evidence of life than of death. We have been free to express our opinions on both sides of

every question and when disagreement arose we still remained friends. This Association has not been cursed by the stupidity that comes from an invariable identity of opinion.

At times the dangers which beset organization may seem to have pursued this Association. Organization, which at first is instrument or means, tends to become an end in itself. This is the fate of most organized causes: a movement arises with its standardized labels and values, and its stereotyped mannerisms. Success is estimated in material effects, tangible results, number and power. The organizer takes precedence over those who possess the interest which it was his task to serve. There may have been the danger of the system supplanting education. We may have been in danger of thinking of education in terms of buildings and equipment, the authority of specific subject training, endowments, quantitative subject requirement for credit recognition, etc. But did we not begin the only place that we could begin and have we not dealt with the fundamental factors of educational existence? Respectable existence is basic to any attainment. This first step had to be taken before we could think of education as the art of making living itself an art,—or as a factor in the achievement of human excellence.

Whatever may be the future fields for consideration, let us hold on to the attainment which we have achieved. An adventure into the less tangible phases of education can only be successful with the solid background which we have acquired. However if this Association is to continue to serve education in a vital way, if it is to continue to exist, it cannot rest on past-laurels.

There are sweeping changes which have come into the educational field which we must recognize. Educational institutions are being reclassified and redefined. The boundary lines are being changed by the extension of the Secondary field in two directions. Curricular reconstruction is going on under economic and social demand. The enormous increase in the educational population in

both the college and the Secondary school has presented staggering problems. We are compelled to subscribe to the Emersonian doctrine that certain social states are not voted in or out—they evolve. This evolution can not be ignored in our future plans.

There are reasons why we cannot be provincial. Students and teachers are going from one regional association to the other in larger and larger numbers, which calls for a more unified and intimate relationship between the associations. The national survey of Secondary education to which we are looking forward promises great returns in this regard and this association should co-operate to the full in that movement.

Our procedure in setting up standards in the future should be more scientific. I think that we would all admit, at least when we are at home, silent and alone, that we have imposed standards which bore no certain correlation to educational efficiency. With the machinery that we have at our command we should engage our entire membership in research problems out of which our standardization should come. This would result in a more progressive attitude on the part of our accredited schools and instead of being mere conformists, they would become sharers and participants in a progressive spirit and outlook.

The time is near at hand when we should give more attention to standards in non-academic subjects in our high schools. This work is being accepted for college entrance requirements, to a limited degree at least and therefore should be done upon a sufficiently high plane to merit that recognition. The work done in manual training departments of our high schools ranges from the most dignified, highly commendable work in our technical high schools to the construction of bird houses and foot stools in the host of smaller high schools. Teachers in the latter have as a rule secured their training for this work by taking a six-weeks' course in the normal department of a teachers' training institution. What has been said of manual training is true, to a degree at least, of the other non-academic subjects.

Graduation from a technical institution or department is not too much to require for the preparation of a non-academic teacher.

Then there is that most fundamental factor in education, the teacher. In our high schools we require graduation from a standard college, a minimum of fifteen hours in education, and that subjects taught shall be majors and minors. This is a good beginning, but we all know that you can have all of these and still not have a teacher. There is no guarantee that a person who has gone to college has an alert and active interest in the human significance of things, a readiness to judge from the standpoint and in the light of broad social contacts and a capacity for recognizing the interests and ability of others. These are essential in relating knowledge to life. "The great teacher has the sense of continuity that runs through human life in all time and all things which is at the bottom of the general demand for truth." The efficient teacher is the one who can turn his subject and himself into one. He recognizes subject matter as material separated by the human mind out of the universe for its own living uses. The teaching process is a means of passing this on to other minds by which they are vitalized and set free. It is communicated best by intellectual vivacity and contagious enthusiasm.

Now I am entirely aware that this interpretation of a teacher cannot be written into a requirement—but it can be given publicity and set up as a guide in the selection of teachers. The service which this association has rendered has not been so much the imposition of standards as it has been a pointing of the way. Many of our standards were at first recommendations and advised procedures. Gradually as they were proven worthy, they gathered strength and were crystalized into standards. It has been only the very limited few of our institutions which have been unwilling to be thus guided.

A staggering problem which confronts us is the twenty thousand boys and girls who constitute the annual freshman mor-

tality, due to partial or absolute failure in studies in the collegiate institutions of America. Sometimes I have thought that we have been more interested in adding to the list of "the killed, captured and missing" than we were in the conservation of human values. Can we afford to overlook the fact that these boys and girls are the sons and daughters of parents who have thought that sending them to college was the finest thing they could do for them? Modern civilization regards every boy and girl as a goal. Each is a person and not food for an institutional mill. He is a life standing at the threshold of society, in most cases craving a chance for the development of his personality and for the exercise of his capacity, however meager and limited that may be. Moreover he is a product of the ages. He did not choose the blood which flows in his veins nor select the environment in which he finds himself. America has decreed that he shall have an opportunity through education to rise above that heritage.

The question arises, on what conditions shall an opportunity to continue his education be denied?

In the consideration of this question most of the discussions in the past have been a matter of accusation and an attempt to avoid responsibility by placing it on some other part of the vinyard than the one in which we work. The following verses will best indicate how responsibility has been passed from college to the family tree. (Quoted).

WHO'S TO BLAME

THE COLLEGE PRESIDENT:

Such rawness in a student is a shame,
But lack of preparation is the blame.

THE HIGH SCHOOL PRINCIPAL:

Good Heavens! What crudity! The
boy's a fool.

The fault of course is with the gram-
mar school.

THE GRAMMAR PRINCIPAL:

Would that from such a dunce I
might be spared!

They send them up to me so unpre-
pared.

THE PRIMARY TEACHER:

Poor Kindergarten blockhead! And
they call

That "Preparation". Worse than
none at all.

THE KINDERGARTEN TEACHER:

Never such lack of training did I see!

What sort of person can the mother
be?

THE MOTHER:

You stupid child! But then, you're
not to blame;

Your father's family are all the same.

When the temptation to alibi is absent, would not each of us have to admit that all of these agencies may be and probably are factors in failure? All are engaged in the business of directing a dynamic and developing personality. Each has an invaluable contribution toward the development of the wealth of life in those who come under its direction. To withhold the gift, to do the wrong thing at the wrong time, not to understand the problem of guidance nor to take it seriously would, in a measure at least, contribute to failure. Through scientific study, let us find out upon what forces the welfare of each human life depends and then apply those. Already child study and psychological research have contributed much to that end. It is my belief that the future discoveries of how to release and control human energy may rival the unlocking and harnessing of physical energy, which science has so marvelously accomplished. Is it not the business of every educational institution to make contributions to this field?

As to causes of failure in college, we include all the factors when we say they are due to the absence of intelligence, or to the nonacquisition of desirable personal traits, such as knowledge, right habits, attitudes, and ideals.

There are some educators who claim that the first of these is the chief contributing cause. They think of intelligence as "a fixed unalterable datum where the distance one travels is already predetermined by fate; where unalterable laws operate in spite of environing

factors, so ruthlessly that you cannot make a silk purse out of a sow's ear. Heredity fixes the upper limit; man is doomed under the aegis of chromosomes fixed eternally in the heavens, the same yesterday, today, and forever." This is certainly a fatalistic conception of the problem.

There are other educators who claim the chief cause to be due to acquired traits—such as inferiority attitudes, fear complexes, squelched desires and ambitions, self inhibition, habits of evasion and indifference, absence of knowledge and objective, all of which constitute warped and deficient personalities.

In this view lies hope. There is the possibility of surrounding developing human life by right influences and circumstances so that well balanced wholesome and effective personalities may be developed.

We can do more than that. Where unstable and unfortunate personalities exist, education can exercise a remedial effect.

In my interest in this problem two years ago, I sent out a questionnaire to 200 college teachers. Time will permit me to present only part of that study. There was every evidence that college teachers were interested in the problem and that they were exceedingly critical of their own practices and dissatisfied with their results.

The criticisms of their own teaching was summarized as follows:

- No definite attempt to challenge students.
- Objectives left in isolation.
- Indefiniteness of course objectives.
- Slight student participation.
- Too large classes.
- No application of the laws of learning.
- Unskillful questioning.
- Too much dependence upon lecture method.
- Indefiniteness of assignment.
- Providing no special incentives to effort.
- Not making environmental conditions to learning favorable.
- Vicariousness on part of the in-

structor.

Their answers to the question, What can High Schools do to more adequately prepare students for college? were these:

- A—Higher scholarship standards.
- B—Procedure more thought promoting.
- C—Curriculum more concentrated.
- D—Stressing supreme importance of curricular success.
- E—Promotion of better study habits.
- F—Better regulation of athletics.
- G—Better co-ordination of school with home.

To the question: What could colleges do that they are not doing to reduce freshman mortality? The following answers were received:

- Better defined objectives
- Better teaching
- More dependable ways of testing
- Evaluating students without prejudice
- Freedom of students from inhibitions due to attitude of instructor
- Educational and personal guidance
- Better control and provision of living conditions
- (Elimination of the unfit.)

To the question, "What do you regard as the three most valuable personal traits in a beginning university student?", sixty-five qualities were named. These are:

COLLEGE

- | | |
|------------------------|---------------------------|
| Adaptability | Concentration |
| Alertness | Critical attitude of mind |
| Ambition | Dependability |
| Application | Desire to learn |
| Co-operation | Discipline |
| Cheerfulness | Energy |
| Culture | Expression |
| Intellectual curiosity | Earnestness |
| Compatability | English ability |
| Conscientiousness | Fairness |
| Charm | Health |
| Confidence | Honesty |
| Citizenship | High Ideals |
| Character | Impressionable |
| Capacity for hard work | Independence |
| Common sense | Industry |
| | Integrity |

Intelligence	Reflection
Interest	Sincerity
Initiative	Study habits
Loyalty	Service
Methodical	Scholarship
Modesty	Self-respect
Morality	Sense of value
Mentally mature	Self-reliance
Open-mindedness	Social responsi-
Older	bility
Originality	Self-control
Poise	Seriousness of
Perseverance	purpose
Patience	Tolerance
Personality	Thoughtfulness
Regularity of	Unselfish
habits	Will power

The ten qualities receiving a comparatively outstanding number of votes were, in order, as follows:

1. Industry
2. Intelligence
3. Having a worthy objective
4. Desire to learn
5. Intellectual curiosity
6. Ambition
7. Intellectual honesty
8. Will power
9. Study habits
10. Initiative

The student who would be the embodiment of all of these qualities would not only have fulfilled the entrance requirements to college, but to heaven itself. However, we might sum these all up by saying that the student who goes to college with a worthy objective, having the "gray matter" to warrant the choice and the character to see it through, is a safe college risk.

A significant fact is that scholarship, the absence of which is so generally thought of as being the cause of college failures, does not appear in the upper ranking. It received only seven votes. That says that not knowledge or subject matter, but character traits are of prime importance in college success.

Another question was: What responsibility should a university instructor have for "selling" his course to his students? That question was misunderstood by a

number of these faculty men, since they interpreted it as meaning a means of getting students to elect their courses. The question, as intended, referred to the application of the "Doctrine of Interest" in the class room. Including only those who thus interpreted it, fifty stated that a teacher had a great responsibility in conducting his classes so that his work was not only clear and forceful, but interesting. Seventeen would assume only a partial responsibility in this regard, saying that it was as much the student's business as the instructor's to see that the class period was a success. Only four maintained that they had no responsibility in the matter; that it was up to the student to get what was offered. It seems that these four do not believe in the theory that teaching is a process of "going down into the valley of dry bones and breathing into them the breath of life." Evidently, from the number so voting, this particular species of educator is rapidly becoming extinct, and, when gone, no doubt the number of college failures will be materially lessened.

Since this problem concerns itself with human values, does it not deserve scientific inquiry into the facts? Are there any of us who would be willing to conclude that the exclusion of these young people was without question the best thing for them as individuals or for society? It would be an interesting (and I believe an enlightening) bit of research to find out what has become of these so-called college misfits. Who, at their college age, could have predicted a Lincoln, a Thomas Edison, a Beethoven, a Pasteur, a Lindbergh, or a Herbert Hoover. Is it not the business of the college "to set free the genius from the common way?"

Now I am not contending that the pupil waste in our colleges can ever be reduced to the vanishing point. A college cannot always supply the basic traits in which a student is lacking without it being at the expense of its own spirit—the very ideals and standards which it is supposed to implant. The college, in order to fulfill its mission, must retain its own individuality.

But this is no reason why it should not

develop an institutional system based on the theory that the school has an instructional duty to every pupil and that a high percentage of failure is as much a reproach in a school as in any other enterprise.

Is it too much to ask that colleges and high schools have a definite well formulated administrative technique designed to give a per capita accounting?

In concluding, perhaps we could agree that most of our educational problems are perplexities which follow in the train of rapid advances in material wealth,

and living, and in social organization. As administrators of Education, we should be men enough to cooperate to the full in an endeavor to meet these challenges. It is not among laggards, faultfinders and grumblers that society will look for its leadership, but among those with understanding and vision; men and women who are sensitive to the welfare of the youth of America and who have the courage to cut the way straight through all perplexities in order that each may have an opportunity to develop his personality to the full.

Plans to Encourage and Recognize Exceptional Teachers at Work in the North Central Association Schools*

BY MILO H. STUART, PRINCIPAL, ARSENAL TECHNICAL HIGH SCHOOL,
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Since it is the province of the North Central Association to advance the schools on its list, it follows that the improvement of the teacher is of utmost importance. Our constitution, however, circumscribes the field of work to three commissions, two of which are engaged in standardizing and accrediting, and one is committed to unit courses and curricula. It follows therefore, that our Association must labor within its scope to give all assistance possible to better the quality of the teacher's work. The following plans are intended merely to suggest fruitful possibilities within our power.

PLAN I—Guarding the entrance to the profession so that exceptional teachers may not become discouraged through lowering of standards.

The Association could require all accredited teacher training institutions to evaluate the personal qualifications of all students who, within a given year have completed their preparation for entering the teaching field; this evaluation to be made upon the basis of the students' character, industry, personal fitness and especial fitness for the work of a teacher. There are many ways of doing this but for fear I may be considered visionary I shall attempt to present one method which will at least be suggestive. Suppose all the prospective teachers from a given school were classified into three groups by the institution itself. Group One should include those who give evidence of exceptional promise; Group

Two should include those who rank as average, but concerning whom the institution has no question as to future success; Group Three should include those for whom the institution would give no particular warranty of merit. No institution in any one year should place more than twenty percent of its graduates in Group One, nor more than seventy percent of its candidates in Group Two. This grouping of the teachers would constitute a part of her professional credentials.

PLAN II—Regulating the supply to the demand that exceptional teachers may not be disturbed as to professional future.

A study may well be inaugurated to determine:

(a) The degree to which teachers are being prepared in proportion to demand.

(b) The degree to which teachers are supplied in relation to the facilities which the institutions command.

To determine facts relative to supply and demand, a study should be made through the licensing departments of the states of the North Central territory to determine the number of qualified, available, licensed teachers not now employed.

To determine facts relative to supply and facilities for training the same, a plan should be established whereby each accredited teacher-training institution of the North Central territory should report upon the demand for and supply of teachers in the area which it serves, and upon the facilities which it commands for doing its work. Such a survey should include also a report upon all students

*An address delivered before the Association at its meeting in Chicago, March 14th, 1929

who completed teacher-training courses in the institution in the two year period preceding the date of making the report, together with the report upon the work at which all such students are engaged at the time of reporting, and such other information as the Association may consider pertinent to the question.

PLAN III—Intergrating courses in education for teachers in service with the daily school life of the teacher.

The Association could, with profit, inaugurate a study of existing programs of extension courses in education within the accredited teacher-training institutions, with particular attention to the degree to which such courses directly relate to the actual work of the teacher. Such study should be so directed as to lend encouragement to all movements upon the part of teacher-training institutions which will enable extension work to be formulated upon the basis of the problems of the teachers in the classroom.

Such classes should be but another form of a faculty meeting under professional leadership, the professor and the principal or principals concerned having joint responsibilities.

Likewise, term papers and theses required of teachers in service taking resident courses in education should deal with those lines of research for which the teacher's school setting constitutes the best laboratory.

All this means improvement of the teacher in service without dividing her interest or double taxing her energies.

PLAN IV—Requirements for the Master's degree with respect to teachers in service.

The Master's Degree for teachers in service should be based upon the teacher's major, plus a reasonable amount of courses in education. A teacher in service who takes time off or uses her summers to advance her training toward a Master's Degree should come back with the latest thought in education, together with a fresh subject matter grasp of her major field of study. This, in the main, is being done now in most institutions except in a few departments

where little place, if any, is allowed to education. Because of this fact, together with the limited offerings in most subject matter fields during the summer, many exceptional teachers are taking advanced degrees in education without additional enlargement of subject matter content or professional vision relative thereto.

A proper balance in these two phases of teacher training will do much to improve the teacher in service and add professionally long life to the exceptional teacher.

PLAN V— Keeping the gifted teachers teaching.

At the present time the goal of the superior teacher is in the field of administration rather than in the field of instruction, regardless of preference or aptitude, because of better salaries. In order to give a new direction to teacher's interests and aims, the North Central Association should set itself against a dead level maximum salary for teachers and stress the necessity of devising a new method of compensation, whereby superior teachers may feel no necessity of leaving the classroom in order to receive adequate reward.

To accomplish this, the Association must induce the local authorities to differentiate in favor of the exceptional teacher. We could amplify, for example, the salary standard of the North Central Association to stimulate range in salary schedules. In the Annual Report, data could be collected not only as to average salary, lowest salary and maximum salary, but a comparison could be made between the average salary of the lowest five percent and the highest five percent. Perhaps in a short while the Association could establish a ratio of, say, one to two or even one to three between the lower and the upper groups.

Again the Association could require that in each school a sum of money be paid exceptional teachers over and above the maximum equal in the aggregate to the amount heads of departments and vice-principals receive above said teacher maximum.

Some such a plan would make the

road ahead of the exceptional teacher as attractive as administrative work in the same school, and would add much to the efficiency of teaching.

PLAN VI—North Central recognition to exceptional teachers.

The National Honor Society stimulates the best students in our high schools to do their utmost for themselves and the school. In a manner somewhat similar, this Association might devise a plan for recognizing the exceptional teacher and stimulate her to higher endeavor.

A comprehensive plan for determining the exceptional teacher might also be developed which could be applied to the various high school faculties on those years when a complete report of all teachers is required. A five or ten per cent of each faculty might be designated

as exceptional teachers and some kind of certificate awarded them by this Association indicating exceptional merit on the part of the recipient.

Again, the commission on unit courses and curricula might be authorized to organize an auxiliary commission of exceptional teachers quite extensive in character, which would carry with it not only worth while recognition but would constitute a working army at the front at all times ready to assist in developing unit courses and cooperating in educational research which would augment the scope of this commission many fold.

All plans here proposed are simply suggestive in the hope that something may develop within the scope of the Association which will add to the joy, the service and material compensation of the exceptional teacher within our midst.

Class-Size Opinions, Evidence, and Policies in Secondary Schools

BY EARL HUDELSON, UNIVERSITY OF MINNESOTA*

Calls are coming into employment bureaus for teachers qualified to handle larger junior and senior high school classes. Not a few administrators are organizing big high school classes under competent instructors at increased salaries. Others are releasing outstanding classroom teachers from routine duties and clerical tasks and giving them bigger classes. Many are segregating retarded pupils in small sections and organizing the rest in big classes. In at least a score of secondary schools where big sections have been tried the superintendents are knocking out partitions and organizing still other big classes. Here and there more and more of the content of laboratory subjects is being transferred to large lecture-demonstration classes with a consequent reduction in the number of small laboratory sections. There is a deep and widespread doubt among public school administrators concerning the wisdom of arbitrary class-size limitations. Elementary school teachers and superintendents complain that either secondary school classes are too small or elementary school classes are too large. Average class size in senior high schools has increased from 19.8 in 1914 to 27.4 in 1928.

Are these trends and attitudes toward larger junior and senior high school classes justified? Teachers cry "No!" The public signals caution with one hand and hugs its pocketbook with the other. What is the evidence? Rice's 1896 investigations¹ of arithmetic and language

achievement in large and small classes included the eighth grade. He found no apparent relationship between achievement and class size. Elliott's 1914 study² of promotion rates, achievement, pupil experience with class size, and pupil improvement included seventh and eighth grade classes ranging in size from 20 to over 50 in several cities. He found large classes slightly excelling in some subjects and small classes in others, regardless of the size of classes to which the pupils were accustomed. Neither promotion rates nor improvement in penmanship and language bore any apparent relationship to class size.

Harlan³, in 1915, investigated the relation of class size to promotion rates, voluntary withdrawals, pupil attention, pupil participation, time spent in routine classroom activities, economy of time, and pupil attainment in arithmetic in 1,346 classes in grades I-VIII in 32 cities. Except for voluntary withdrawals, which were higher in the large classes, the net results in the seventh and eighth grades revealed no connection with class size in groups up to 56 in enrollment.

Breed and McCarthy,⁴ in 1916, measured the effect of class size upon efficiency in spelling in 58 paired classes in elementary schools. In grade VIII large classes showed a somewhat higher per

²Elliott, E. C. *Variations in the Achievements of Pupils*. New York: Columbia University, Teachers College Contributions to Education, No. 72, 1914.

³Harlan, C. L. *Size of Class as a Factor in Schoolroom Efficiency*. *Educational Administration and Supervision* 1: 195-214, March, 1915. See also the same magazine for June, 1915, pp. 384-389, and for September, 1915, pp. 465-469.

⁴Breed, F. S. and McCarthy, Grace D. *Size of Class and Efficiency of Teaching*. *School and Society* 4: 965-971, December 23, 1916.

*An address delivered before the Commission on Secondary Schools at the time of the Annual Meeting in Chicago, March 14, 1929.

¹Rice, J. M. *Educational Research: a Test in Arithmetic*. *The Forum* 34: 281-297, October, 1902, and *Educational Research: the Results of a Test in Language*. *The Forum* 35: 269-293, October, 1903.

cent of improvement; in grade VII small classes slightly excelled.

Stevenson's 1920-1921 controlled experiments⁵ in five elementary schools of Chicago included grade VII. He measured relative achievement in arithmetic, silent reading, and language. Each large class was paired with a small one on the bases of intelligence, semester, and teacher. Standardized achievement tests were administered at the beginning, middle, and end of the year. He found no significant relationship between class size and pupil achievement among pupils of high or average intelligence. Small classes were, in general, least disadvantageous to dull pupils.

Stevenson⁶ also compared class size with class work and final examinations in 134 Chicago senior high school classes. According to their own ratings, these teachers handled their large classes about as efficiently as they did their small ones.

In 1922 Stevenson⁷ compared examination marks and term averages of large and small classes in algebra, Latin, ancient history, United States history, and ninth grade English in Lynn, Massachusetts, Covington, Kentucky, and Grand Rapids Michigan. The smaller classes showed a very slight advantage on average examination scores and an infinitesimally small superiority on term averages. Small classes were also slightly superior in average intelligence.

Lest the differences in size between paired large and small classes in his Chicago elementary-school investigation may have been insignificant, Stevenson,⁸

in 1923-4, refined his experimental technique and conducted an elaborate investigation of class size in heterogeneous sections in grades II, V, and VII in Akron, Cincinnati, Cleveland, and Toledo, Ohio. In grade VII the advantage in favor of large classes maintained for groups as large as 45. By and large he could find no significant relationship between class size and pupil accomplishment at any intelligence level.

In the most extensive investigation yet made, Davis⁹ analyzed the scholastic marks in large and small classes in the accredited high schools of the North Central Association. He concluded that size of class has little or nothing to do with marks. He also studied the test scores and mid-semester marks of over six thousand high school pupils in twenty cities who were organized into large, medium-sized and small classes and taught under more or less controlled conditions for nine weeks. Again his inescapable conclusion was that "the effectiveness of a high school class, in so far as the achievement of pupils is the objective, is chiefly determined by factors other than size."¹⁰

One of the schools which participated in Davis's investigation was the Grand Junction, Colorado, High School. The English teachers in that school became so engrossed in the project that they decided to continue it throughout the remainder of the school year.¹¹ It covered grammar, composition, notebook work, outside reading, and various phases of American literature in junior English classes. While factors were somewhat better controlled and results more carefully measured than during the first nine weeks, the findings were still largely empirical. Conclusions were that English does not lend itself readily to such an experiment, but that as a result of their

⁵Stevenson, P. R. *Smaller Classes or Larger*. Journal of Educational Research Monographs, No. 4, 1923. Bloomington, Illinois; Public School Publishing Company.

⁶Ibid.

⁷Stevenson, P. R. *More Evidence Concerning Large and Small Classes*. Educational Research Bulletin, Vol. IV, No. 11, May 27, 1925, pp. 231-233. Columbus: Ohio State University, College of Education, Bureau of Educational Research.

⁸Stevenson, P. R. *Class Size in the Elementary School*. Ohio State University Studies, Vol. II, No. 10, November 30, 1925. Bureau of Educational Research Monographs, No. 3, Columbus: Ohio State University, College of Education, Bureau of Educational Research.

⁹Davis, C. O. *The size of Classes and the Teaching Load in the High Schools Accredited by the North Central Association*. *School Review* 31: 412-429, June, 1923.

¹⁰Ibid.

¹¹Tope, R. E., Groom, Emma, and Beeson, M. F. *Size of Class and School Efficiency*. *Journal of Educational Research* 9: 126-132, February, 1924.

experiences these teachers felt 30 to be about the ideal class size.

Bates's 1928 study¹² of pupil achievement in 94 classes, ranging in size from 14 to 47, in the Riverside School of Montreal, Canada, included the seventh grade. Each of the 21 teachers taught all subjects. Bates found that (1) the larger the class the higher the achievement in arithmetic, while in the other subjects (art, English, French, geography, music, Scripture, spelling and writing) there was no significant relationship between attainment and class size; (2) in arithmetic, French, and all subjects combined, the large classes were most efficient for the bright pupils, and in French and all subjects combined the small sections were least inefficient for the dull pupils; (3) the chief factor in maintaining or increasing efficiency in large classes seems to be a corresponding decrease of maternalism in the methods of the teachers; putting even elementary and junior high school pupils on their own actually increased achievement; (4) except for the ability of the pupils, the professional equipment of the teachers is apparently the most important factor in the efficiency of teaching; (5) good teachers get better results with large classes than poor teachers get with small ones; (6) in order to produce equally good results with large classes, it is not necessary for teachers to work longer hours than they spend with small classes; and (7) under present conditions the pupils in large classes are more contentedly interested in classroom activities than are the pupils in the medium-sized or small classes.

Miller,¹³ in 1927-1928, studied the relationship between the achievement of six hundred pupils in 28 high schools and the size of classes in physics.

¹²Bates, Daniel Abel, *The Relation of the Size of Class to the Efficiency of Teaching*. Unpublished Master's thesis, University of Chicago, August, 1928.

¹³Miller, Paul S. *A Quantitative Investigation of the Efficiency of Instruction in High School Physics*. *Journal of Educational Research* 15: 119-127, February, 1929. For a criticism of Miller's study, see the same magazine for May, 1929, pp. 393-4.

Achievement was measured by means of cooperatively devised objective tests on heat and mechanics. The content of the tests was selected from the five leading physics textbooks in use in that state. Classes ranged in size from 3 to 31. Dividing them into fourths according to the size, the lowest average test score was in the smallest one-fourth of the classes, the next lowest in the second one-fourth, the next in the third, and the highest average score was in the largest one-fourth of the classes.

Wasson,¹⁴ in 1927, conducted a controlled experiment with four groups of ninth grade pupils in the Austin High School, Chicago. Sixty-five pupils who were pursuing the General Language curriculum were divided into sections of 25 and 40 and were taught English, algebra, Latin, and general science. In each subject the same teacher taught both the large and the small section. The pupils were so paired that the sections were equal in average intelligence. No known factors of selection were operative. The total teacher load was kept normal. Each pair of sections was taught during consecutive periods of the school day. Achievement was measured by means of improvised objective tests administered four times during the semester. The teachers were not, however, compelled to base their marks exclusively upon test scores.

The small classes showed a superiority in average achievement of 2.8 points. A group of administrators and teachers felt that this advantage was too slight to warrant the greater cost of the small classes. Wasson found a closer relationship between average achievement and semester marks in the large classes than in the small. The small classes slightly excelled the large in mark points during the succeeding semester.

Following the same controlled procedure, Wasson also divided 65 pupils who were carrying the Technical curriculum into paired sections of 25 and 40 and measured their achievement in Eng-

¹⁴Wasson, William Henry. *A Controlled Experiment in the Size of Classes*. Master's thesis, University of Chicago, June 1929.

lish, algebra, and general science. The large section slightly excelled the small in English, with the situation reversed in algebra and general science. In the three subjects combined the small classes exceeded the large by six-tenths of one point in mean achievement. Again the small class slightly excelled the large in mark points during the following semester.

In both series combined the large classes slightly exceeded the small in English, both in average scores on achievement tests and in semester marks. Conflicting results accrued in general science. In Latin and algebra the small classes slightly excelled. The small classes cost 37.5% more.

In view of the small differences in achievement and the big differences in cost between large and small classes, exponents of the latter will find meager consolation in these investigations. And they picture large-class conditions at their worst, for none of them consciously attempted to adopt teaching procedures to the size of the class; consequently it is reasonable to assume that the teachers employed technique suited to the size of classes to which they were accustomed; namely, small classes. Trueblood's¹⁵ is the earliest recorded attempt studiously to adapt instruction and management to large classes. He handles geometry sections of one hundred pupils in the Arsenal Technical High School of Indianapolis. Forced to adapt his program to an ever-increasing enrollment, he gradually evolved techniques for conducting classes of one hundred pupils without lowering his standards of mastery. The salient features of Trueblood's procedure are a student assistant to each ten pupils; brief, snappy oral reviews; daily short diagnostic tests; and ingenious but perfectly feasible methods of economical classroom

management. The helpers were A students in the same course previously. They serve gratis and consider appointment an honor. In so far as possible they are chosen from among those who are planning to be school teachers. They handle routine matters, keep the instructor posted on the progress of each of their charges, administer the daily tests, and assist with advance study and remedial treatment.

In many geometry classes the black-board work is largely drill in mechanical drawing. Trueblood has the outlines of the geometric figures put on the black-board before class; then a pupil quickly sketches in the construction lines as he develops the proposition.

In the belief that much can be done toward giving large classes a better chance to succeed, the University of Minnesota High School in 1925 launched experiments in geometry and English. Both were planned to run two years, the first year to be spent in trying out various teaching methods to determine which are best adapted to large classes and which to small classes, the second to be devoted to controlled experiments in which the most promising large-class techniques were to be applied to large classes, while paired small classes were to run simultaneously under the most promising small-class conditions and procedures.

Because he accepted a position elsewhere Haertter,¹⁶ completed only the first part of his experimental project; yet he was able, even during his try-out year, to bring his class of 55 pupils out ahead of the best he could get his paired section of 20 pupils to accomplish. Two pupils in the large class were paired with each member of the small class on the basses of sex, mental age, average I. Q. on six standard intelligence tests, average of freshman marks in English,

¹⁵Unpublished. For a brief account of his technique, see Hudelson's "Class Size at the College Level", p. 34. Minneapolis: University of Minnesota Press, 1928. Chapter II of this volume critically reviews the class-size studies at every educational level.

¹⁶Haertter, L. D. An Experiment on the Efficiency of Instruction in Large and Small Classes in Plane Geometry: *Educational Administration and Supervision* 14: 580-590. November, 1928.

Table I. Pairing and Achievement Data, Haertter's Class-Size Experiment in Plane Geometry

	Av. I. Q.	Med. I. Q.	Av. Fresh. Marks	Av. Mental Age	Pairing Tests			Total Pos. Achiev. Score	Median Achiev. Score
					Reeve	Mpls	Haertter		
Small (20).....	111.1	112.0	63.0	196.2	21.6	13.3	66.5	780	562.0
Large, preferred *(20)	111.0	110.5	63.3	202.3	.....	.....	.....	780	557.5
Large, all paired pupils (40)....	111.4	109.5	60.3	202.3	21.6	12.3	66.3	780	552.5

*The 20 pupils most closely paired, man for man, with the members of the small class.

general science, and mathematics, and three objective mathematics tests.¹⁷

Haertter's small section met as a unit under the most efficient techniques of instruction and management that he was able experimentally to devise. The salient feature of his large-class technique was the breaking up of the class into deliberative groups of nine pupils each under the leadership of a strong student. After these squads had gone as far with the mimeographed assignments as they could, Haertter would call them together and help them clear up their troubles. He found that most of the squads usually experienced the same difficulties; consequently he was able to go at once to the specific obstacle and resolve it with a maximum of economy. He occasionally met with the leaders by special arrangement to consider ways and means of making their leadership most effective. The monitors, each of whom served six weeks, were conscientious and proud of their responsibilities.

Haertter found for the successful use of his large-class technique it was necessary to have a commodious room, ample blackboard and bulletin-board space, adequate mimeographing facilities, and a teacher with strong administrative ability. All assignments, drill material, and tests were mimeographed. Each assignment covered a unit of from five to ten days and explained definitely what was required—minimum requirements for all

and extra assignments for the bright pupils.

The total possible score on Haertter's tests of achievement was 780. The median score of the small class was 562; that for the twenty most closely mated pupils in the large class was 557.5; and that for all of the large class, 552.5. (See Table I) The advantage of the large class was least for the weak students. Haertter thinks that this condition is not inherent in the situation and that with study he could obviate it. The large class proved to be better for mediocre pupils. For the brightest students class size made no apparent difference.

When Haertter resigned, his colleague, Miss Margaret McGuire, took up the plane geometry experiment¹⁸ in the fall of 1926. Her small class consisted of 23 pupils, her large class of 44. Nineteen in each section were paired on the bases of chronological age, sex, the average of five intelligence tests, previous marks in English, mathematics, and general science, and character trait ratings on the Turney Scale. Lest the procedures which Haertter had found most effective might not be her most successful techniques, Miss McGuire also devoted a year to trial experiments. Her apprehensions were confirmed; she was not able to administer Haertter's large-class technique to her satisfaction. She tried it for the first six weeks, but abandoned it because of disciplinary complications, because she felt that the squad leaders were doing too much of the work, because too much time seemed to be wasted when no one in a squad knew

¹⁷The Reeve Minimum Essentials Test, Ninth Year, Form A; the Minneapolis Minimum Essentials Test in Plane Geometry; and the Haertter Inventory Test in Plane Geometry.

¹⁸Unpublished.

the solution of a difficulty, and because she was not able to call the squads into plenary session promptly enough to satisfy her. Through her diary for these six weeks runs a strain of regret that she ever resolved to subject the pupils in her large class to such an untoward situation.

She next tried the cooperative development of theorems. As the pupils contributed she recorded the major steps on the blackboard. These skeleton proofs the pupils copied in their notebooks, with instructions to fill in the omitted steps in study hall or at home. Miss McGuire found that this procedure held the attention of the class but did not prevent copying. Moreover, it required many hours of her time over notebooks, which she doubted the value of.

She tried using the class period for supervised study, with her best students detailed to assist her in helping the slower ones. Her log reveals that she felt this to be an undue hardship on the capable pupils in that it kept them from doing extra work commensurate with their abilities. She therefore essayed giving all of the supervision herself, but concluded that the weaker students in the large class wasted too much time in waiting for her to get around to them. In the small class this handicap was not so apparent. By this time she had become reasonably certain that the obstacles to effective teaching in large classes were well nigh insurmountable. She tried having pupils demonstrate propositions on the blackboard, only to abandon the practice because they could not hold the attention of the large class. She felt that this procedure worked distinctly better in her small section.

Almost in desperation, she attempted snappy oral drills, with pupils standing who did not know. She considered this the best procedure that she had yet undertaken with the large class. Still not satisfied, however, and regretting more deeply than ever having undertaken the experiment, she tried daily written tests followed by remedial instruction and retesting. This proved to be fairly successful in both classes. To her surprise and gratification the capable stu-

dents often volunteered to assist the weaker ones. Four such series were attempted; in two the large class showed more improvement and in the other two the small class excelled. As a variation she tried giving short written tests at the beginning of each class period and scoring the papers herself. This afforded her what she considered to be the distinct advantage, especially in the large class, of being able to keep close tab on each pupil's progress. The large-class situation was beginning to look a little less hopeless. The apprehension persisted, however, that the increasing parity might be due to low standards of accomplishment in both sections. Perhaps the apparent improvement in the large-class situation was only relative.

Toward the close of the year, for purposes of review, Miss McGuire rather tremulously tried organizing the large class into squads again; but this time she grouped them homogeneously and provided each pupil with a drill tablet. The accelerate squads were allowed to plan their own review campaigns; for the mediocre and retarded groups she organized the review herself. Each pupil was responsible for a definite number of problems. Next day he had to explain his hardest problem to the other members of his group. To the instructor's surprise the squad plan was highly successful this time, particularly for the groups over which she exercised daily control. Implicit in her diary of these days are the queries: "Why is this procedure successful which failed earlier? Are the drill-books responsible? Is it because the pupils have a grasp of the subject now which they formerly lacked? Can children be relied upon to retrace alone the path wherever they must first be led? Or is homogeneous grouping the critical factor?"

Accomplishment was measured by nine objective tests, as follows: Haertter's Inventory Test in Plane Geometry; a test on congruency and proportion; a final examination each quarter; two Minneapolis Minimum Essentials tests; the Hawkes-Wood Columbia Research Bureau Plane Geometry Test, Form A;

Table II. Pairing and Achievement Data on Miss McGuire's Class-Size Experiment in Plane Geometry.

SECTION	Size	No. of Mated Pupils	PAIRING DATA						ACHIEVEMENT									
			Sex M F	Age in Months Mean Med.	I. Q., 5 Tests Mean Med.		Freshman Marks Mean Med.		Character-Trait Rating Mean Med.		Local Tests, Total Mean Med.		Mpls. Tests Total Mean Med.		Hawkes-Wood Test Mean Med.		Schorling-Sanford Test Mean Med.	
Small	23	19	9 10	178.5 180.0	116.1 114.5	67.2 69.0	703.3 690.5	526.1 505.0	569.0 575.0	40.5 41.0	37.8 37.0							
				±.9 ±1.4		±2.3	±21.0											
Large	44	19	9 10	179.9 180.0	116.2 115.0	69.4 68.5	740.4 718.5	572.8 564.0	577.9 586.0	41.4 42.0	39.1 40.5							
				±.8 ±1.4		±2.2	±15.0											

and the Schorling-Sanford Achievement Test in Plane Geometry, Form A. The last two are standardized tests.

The best and poorest of Miss McGuire's students did equally well in both classes. The mediocre pupils were at an advantage in the large class. For all students combined, the large class excelled on every measure of achievement (See Table II.) *Both classes exceeded the standard on the two standardized tests.*

Miss McGuire based her marks for the course on (1) work in groups; (2) class recitations; (3) notebooks; (4) short tests; (5) subjective hour tests; and (6) objective tests and examinations. After reducing her subjective measures to quantitative terms she totaled the scores for each quarter and averaged these totals for the year's score. The average yearly mark for each section is shown in Table III. Here again the students of more and less than average ability did equally well, while those of average ability excelled in the large class. In spite, therefore, of the instructor's dubiety, the pupils in the large class were at no disadvantage in either achievement or the more subjective outcomes.

Table III. Average Yearly Marks in Miss McGuire's Large and Small Classes

	Paired Pupils (19)	All Pupils
Small Class (23)	54.4	55.3
Large Class (44)	59.5	58.7

Notwithstanding the conclusion of the Grand Junction, Colorado, teachers¹⁹ that English does not lend itself readily to experimental treatment, Dr. Dora V. Smith, then instructor in English in the University of Minnesota High School, resolved to try a class-size experiment; and her attempt constitutes the most meticulously controlled, elaborately measured, thoroughly analyzed, and completely logged class-size experiment yet

¹⁹Op. cit.

reported at any educational level.²⁰ It is also the only ones in which techniques determined by experimentation to be most effective with large or small classes have been applied to further controlled experimentation.

During each of the two years Professor Smith had a small section of 20 pupils and a large class of 51 pupils in ninth-grade English. Twenty members of the large class were mated with the pupils of the small class on the bases of sex, chronological age, I. Q. (average of five tests), and ability in grammar, spelling, composition, and reading. Miss Smith taught both sections each year. Course content was held constant but the treatment of it was experimentally adapted to the size of the class. Progress was measured by a battery of standardized and improvised objective tests at the beginning of each year and at the end of each quarter or unit of work. In addition to the formidable array of short local improvised objective and subjective tests of diverse specific outcomes, Miss Smith administered at least once, usually twice, and sometimes oftener, the following objective tests. The numbering follows that in Table IV.

I. Composition

A. English Grammar

1. Kirby Grammar Test—Sentences
2. Kirby Grammar Test—Punctuation
3. University of Minnesota High School Grammar Test
4. Ginsberg-Inglis Minnesota English Essentials Test, Alpha, Beta, and Gamma
5. Wilson Language Errors Test

B. English Form

6. Pressey Test of Capitalization, Forms I and II

7. Pressey Test of Punctuation, Forms I and II
8. Briggs English Form Test, Alpha and Beta
9. University of Minnesota High School Punctuation Test
10. Minnesota Minimum Essentials Spelling List for Grade IX

C. Letter Writing

11. Point system for scoring a three-weeks unit in letter-writing

D. Composition

12. Hudelson Typical Composition Ability Scale (story reproduction)*
13. Hudelson English Composition Scale (original narrative)*

II. Reading and Literature

E. Mechanics of Reading

14. Haggerty Reading Examination, Sigma III, Forms A and B
15. Thorndike-McCall Reading Test
16. Inglis Vocabulary Test

F. Knowledge of Literature—Improved objective tests on

17. Ivanhoe and Stories of Chivalry
18. Short Story unit
19. The Merchant of Venice
20. The Age of Elizabeth
21. Narrative and Lyric Poetry

G. Extent and Variety of Reading Activities

22. Contract on Ivanhoe and Stories of Chivalry, with provisions for individual work and individual responsibility for the amount and variety of work done.
23. Contest in short-story reading—points awarded for extent and variety of activity

H. Library Work

24. Improvised objective test on ability to use the library

²⁰Smith, Dora V. A Study of the Effects of the Size of the Class Upon the Efficiency of Instruction in Ninth-Grade English, with Special Emphasis upon the Differentiation of Method in the Handling of Larger Groups. Ph. D. thesis, University of Minnesota. November, 1928.

*Average score of five trained judges.

Table IV gives the combined results for the two years. Column I lists the abilities tested and Column II refers to the measuring instruments, numbered as above. Column IV and V indicate the amount and direction of the differences between the mean achievements of the small classes and the mated pupils in the large classes. Column VI and VII show the same fact for the small classes and all pupils in the large classes. Plus and minus signs indicate statistically insignificant differences for or against each group. Differences with more than a fifty-fifty chance of recurrence in the same direction are listed under the class in whose favor the difference occurred. Differences with a chance value 25-to-1 or larger are those in letter-writing (11) and library work (24) in favor of the small classes and in extent and variety of reading activities (22) in favor of the large classes. Differences with chances of recurrence between 3-to-1 and 10-to-1 all favor the large classes in knowledge of literature (18 and 19) and in extent and variety of reading activities (23). All other differences numerically stated have chances of recurrence less than 3-to-1. Means for all classes combined (143 pupils) are given in Column III only for those tests in which differences of more than one point occurred.

The unit on the use of the library was in sole charge of the school librarian. Facilities were limited, and she found the large class more difficult to manage. Letter-writing was conducted by Dr. Smith herself. Each pupil handed in from two to four letters per day, and the instructor found herself swamped in the large class. Possibly the weakness lay in the ambitiousness of the plan rather than in the size of the class.

There was no apparent relationship between the size of the English class and a pupil's record in his other subjects, which were taught in small classes. Neither did a follow-up study reveal any harmful effect upon the large-class pupils in subsequent English courses; the members of the large class during the second year of the experiment actually

excelled their mates in the next English course.

While, everything considered, all pupils profited more from large-class instruction, the mediocre and bright pupils profited most and the slow one least. This result has been found so consistently in class-size experiments at the secondary level that it may reasonably be considered a justification of the widespread administrative practice of segregating dull children in small homogeneous groups and of organizing the other pupils in larger units. Social economists may pause at giving the least promising members of society the most expensive educational care; but the theory of equitable opportunity to which America is committed seems to demand it.

Miss Smith has recorded in detail her most effective small- and large-class techniques of teaching and class management. Because of the length of her descriptions and because her report is soon to be published, treatment of this phase of her experiment will be omitted here. Suffice it to say that relative effectiveness was determined experimentally rather than empirically and that she has probably succeeded far beyond anyone else in measuring the more elusive but supposedly important outcomes of English teaching. Personal attributes and improvements were evaluated on the Turney Character-Rating Scale. Every class meeting of both sections throughout the two years was attended by three trained observers who kept detailed independent objective records of teacher and pupil activities. These prove that pupil participation, pupil industry, discipline, etc., are not insurmountable obstacles in large classes, and that motivation and pupil initiative were actually enhanced by numbers. Miss Smith's conclusions are, "It is obvious that much can be done by careful planning on the part of the teacher to increase pupil chances for participation, to avoid confusion, to obviate errors which can easily be foreseen, to make pupils self-critical and independent of the teacher, and to keep the activities varied enough to promote interest and a spirit of co-

Table IV. Relative Achievement of Large and Small Classes in Miss Smith's Controlled Class-Size Experiment in Ninth-Grade English, University of Minnesota High School

I Elements Tested	II Test	III Mean	IV Small Class (20)	V Large Class Mated	VI Small Class (20)	VII Large Class (51)
English Grammar	1	-----	+	—	+	—
	2	-----	+	—	+	—
	3	-----	+	—	+	—
	4	86.57	—	1.32	+	—
	5	-----	+	—	—	+
English Form	6	-----	—	+	—	+
	7	23.08	—	+	—	.65
	8	29.26	—	.71	—	+
	9	80.94	+	—	2.04	—
	10	129.82	—	2.38	—	+
Letter- Writing	11	171.53	25.61	—	35.93	—
Composition	12	-----	+	—	+	—
	13	-----	0	0	+	—
Mechanics of Reading	14	-----	+	—	+	—
	15	-----	+	—	+	—
	16	77.29	—	2.86	—	4.14
Knowledge of Literature	17	123.12	—	+	2.14	—
	18	69.75	1.80	—	—	3.24
	19	36.38	—	2.60	—	2.86
	20	30.79	—	+	—	.80
	21	76.69	+	—	3.86	—
Extent and Variety of Reading Activities	22	173.70	—	24.92	—	+
	23	1,623.02	—	+	—	457.54
Library Work	24	37.77	2.83	—	3.05	—

operation on the part of the pupils—even in a class of fifty or more.”

In terms of pupil achievement, then, and of other outcomes in so far as they have been measured, large classes can be made at least as effective as small ones under optimum conditions and procedures. Even under small-class conditions and techniques, large classes can hold their own. Successful large classes are manifestly one means to educational economy; consequently any teacher who takes seriously his simultaneous obligation to his pupils and to his public will

demur against taking on larger classes only in case he *cannot* handle them and not merely because he would *rather not*. He has not proved that he *can* not handle larger classes till he has exerted every reasonable effort to make them succeed. Educational sinecurists have never produced a jot of real evidence on the relative efficiency of large and small classes; they are afraid to give the issue a fair test. Even conscientious teachers are loath to assume larger classes unless they can depend upon administrative cooperation. To a teacher who, whether in.

imagination or reality, is staggering under his present pupil load, the wishing upon him of more students, without compensatory relief, is a weak incentive to experimentation. If an administrator is fortunate enough to have on his faculty a really great classroom teacher, he owes it to his pupils to let as many of them as possible come under her ineffable power. They will not have this privilege if she is so burdened with routine duties that she has no energy or inspiration left for the classroom.

If it is reasonable to assume that there are teachers who can teach only small classes, it is as reasonable to assume that there are others who can excel with large classes. If there are subjects suited only to small pupil groups, there are probably subjects, or portions of subjects, peculiarly adapted to large-group instruction. It is pretty evident that some pupils are handicapped in large classes; it is equally evident that others are restrained in small classes. If certain educational aims are better realized in small instructional units, it is highly probable that others are achieved in larger units. There is no problem of class size; there are problems of class size—and they are legion.

While, other things being equal, larger classes make for educational economy, they do not necessarily imply lower total educational cost. It may be economical to spend the savings in other ways. Educational efficiency is a relative term. The universal situation is that a school has just so much money to spend. No progressive school system has as much as it thinks it could profitably use. More and more demands are constantly being put upon it by society. How, then, can it, with inadequate funds, most nearly realize all of its ideals? Should it relinquish certain of them in order to attain perfection in the rest, or should it reconcile itself to a little less than perfection in them all?

By way of summary, then, let us take up one by one the stock empirical objection to large classes and answer them in the light of experimental evidence and its implications.

1. *There is no sound argument in favor of larger classes.* Refuted.
2. *Bright pupils cannot get justice in large classes.* Refuted.
3. *Dull pupils have a poorer chance of getting by in large classes.* Confirmed. The less promising a pupil is, the more expensive he is to educate. Bright pupils complain that the dull and the lazy ones like small classes because of the better chance to work on the sympathy and to lean on the maternalistic crutches of the teacher. There is some evidence to support this claim.
4. *Large classes stifle initiative.* Refuted.
5. *Large classes increase the proportion of failures.* Refuted.
6. *It requires a strong personality to handle large classes.* A strong personality is an asset in any class; it is probably a more vital asset in large classes. This is a matter of practical moment, but it is not an inherent fault of large classes.
7. *Large classes may work in some subjects but they simply can not in others.* Experiments have not yet been tried in quite all secondary-school subjects; but large classes have proved to be of no significant disadvantage to bright and mediocre children in any subject that has been tested. These include algebra, arithmetic, art, Bible, English composition, English literature, French, general science, geography, geometry, history, Latin, music, physics, and spelling.
8. *Individual differences can not be discovered and provided for in large classes.* Refuted.
9. *Large classes kill the teacher.* With the total pupil load constant, large classes are a means of relief. The overwhelming testimony of teachers is that it is the long daily grind that wears them down.

10. *Larger classes usually mean a heavier total pupil load on the teacher.* Confirmed; but this is not an inherent weakness of large classes.
11. *There would be no point to a teacher's teaching larger classes and then sitting around idle the rest of the day.* Neither would it be good administration. This criticism begs the question.
12. *There would be no point to having large classes and letting a specially equipped room, such as a laboratory, lie idle the rest of the day.* True; but this again is not an inherent fault of large classes.
13. *Many rooms are too small to accommodate large classes.* Trite, but not inherent.
14. *Large classes lower educational efficiency.* Not when the same standards are applied to educational efficiency that are applied to other kinds of efficiency. Efficiency is a ratio.
15. *What we need is fewer and better students.* Class size can not increase mental capacity and has not been shown to increase pupil achievement. Small classes do tend to make for fewer students by rendering the cost of education prohibitive to some.
16. *Teachers will not stand for larger classes.* The majority of the teachers who were offered the hypothetical option of six small or three large classes per day, with total pupil load constant, preferred three large classes. When the hypothetical proposal was made to put teaching on a tuition basis and pay teachers according to the number of pupils they teach, the majority voted against class-size limitations.
17. *Achievement is not the main objective of education.*
 - (a) Achievement is made the chief criterion in both large and small classes. Achievement is the chief determiner of a pupil's success in class work, participation in athletics and other extra-curricular activities, promotion, graduation, honors, recommendations, employment, and college entrance. In all class-size experiments the pupils in both large and small classes have been measured by the same standards. These were the same by which they would have been measured anyway.
 - (b) This criticism implies that achievement is independent of other educational outcomes.
 - (c) Such experimental evidence as we have indicates that large classes are as favorable to other educational outcomes as they are to achievement. Most teachers' marks evaluate more than mere achievement, and marks do not suffer in large classes. Moreover, some controlled class-size experiments have deliberately measured other attributes as well as achievement.
18. *A teacher's success is not to be measured in terms of what he actually teaches, but by the influence which he sheds upon the lives and characters of his pupils.* If this be true, then classes should be enlarged so that as many pupils as possible may come under such a teacher's spell. The jejune teacher, on the other hand, will hardly be more devoid of inspiration before a large class than before a small one.
19. *The ideal educational situation would be one pupil to a teacher—a Mark Hopkins on one end of a log and a boy on the other.* Such a situation would rob pupils of many opportunities for social contact one with another, which is commonly considered one of the valuable outcomes of education. Otherwise it might be a highly desirable situation—and, as Dean Russell remarks,

the annual cost of the boy would be exactly the salary of a distinguished man like President Hopkins!

To the degree that education is less a matter of telling pupils just what and how to do and more a matter of encouraging and guiding them in learning to do for themselves, large classes with their relief from maternalism, compulsion, and strict accounting may prove to be ideal educational situations. The generally coercive policies that prevail in small classes may actually be doing injustice in the name of education.

20. *The public is abundantly able to support the present cost of education.* The mere fact that society can support education in small classes is in itself no reason that it should; and no other reason^a has yet been proved.

Six years ago Davis published in these pages the detailed report²¹ of his elaborate and painstaking analysis of teachers' marks in the accredited high schools of this Association. He found no relationship between marks and class size. His study has been criticised on the ground that teachers' marks are notoriously unreliable; yet no controlled experiment at the secondary level before or since has

²¹Proceedings of the Twenty-Eighth Annual Meeting of the North Central Association of Colleges and Secondary Schools, 1923, Part I, Section D, pp. 30ff. Also *School Review* 31: 412-429. June, 1923.

invalidated Davis' conclusions. Either achievement tests and school marks measure the same thing or the other components of school marks are equally unaffected by class size.

It would seem, therefore, that this Association was amply warranted in taking the action that it did take ten years ago in abandoning class size as one basis of accreditation of secondary schools. That action was recorded in the minutes and has from time to time been publicly reaffirmed²²; yet when in January, 1928, the writer canvassed the administrators of 471 representative public school systems in 48 states for their class-size policies and attitudes, 41 per cent of those who responded from North Central territory replied in substance that while they were opposed to or doubtful of the reasonableness of arbitrary class-size limitations, they dared not ignore them because their schools either held or aspired to membership in the North Central Association.*

*During the discussion which followed the delivery of this report at Chicago on March 14, 1929, a member of a current reviewing committee of the Secondary School Commission testified that his committee had considered class size in passing judgment upon the eligibility of applicant schools. In the lobby after the session, members of three reviewing committees within the past three years informed me that they had allowed class size to influence their recommendations. One member testified that his committee blue-penciled every application which revealed classes over 30 in size.—E. H.

²²See, for example, Dean Edmonson's report in *School Review* 37: 323. May, 1929.

Professional Training of Secondary School Teachers

BY WILL FRENCH,
LINCOLN, NEBRASKA, CHAIRMAN

*(A Committee Report)**

As a background to a summary of the work of this committee, may I call your attention to the original motion creating this committee? It appears in our last report printed in the December 1928 issue of the North Central Association Quarterly, page 341. After requesting an investigation into the general problem of professional training of secondary school teachers it particularly specifies three aspects of the problem: (1) should professional training be graduate or under-graduate; (2) how can effective practice teaching be secured for prospective teachers; and (3) how can greater uniformity in the minimum legal requirements for certification be secured. Last year's report referred to above, shows that work has been done in each of these fields.

In the matter of graduate and under-graduate courses our report shows a broad twilight zone of uncertainty between the two. There are no standards either between institutions or within institutions which determine whether a course is ranked under-graduate or graduate. There are many "tendencies" and "feelings" but no objective criteria. Present practice contributes nothing to the solution of the problem. This committee has neither the ability nor the facilities to determine whether as a matter of educational theory, professional training for teaching ought to be wholly or largely graduate instead of under-graduate. It doubts whether any similarly constituted committee can now determine it. Obviously any secondary school will prefer graduate teachers to

those holding but an under-graduate degree. Other things being equal five or six years of college education for teachers is to be preferred to four. But shall the professional courses be part of the under-graduate or graduate work? Who can give us an answer upon which we can rely? The committee suggests that a reorganized curriculum for professional training evolved after a perusal of the recently published Commonwealth Study* offers the best opportunity for immediate progress in the field of curriculum development. This study will doubtless promote much consideration of the teacher training curriculum and may throw light upon the necessity of providing for graduate professional courses.

The committee has included in its last report two studies touching upon the question of minimum legal requirements. One of them gives a comprehensive survey of the legal requirements for teaching in the several states. The other attempts to compare North Central states with non-North Central states on fourteen criteria. It shows not only how little is necessary to obtain the lowest secondary certificate in North Central and non-North Central states, but also what is necessary in both groups for the highest types of secondary certificates. A reading of these studies shows that the abolition of "blanket" certification is the greatest single improvement that could be made. In eighteen of the twenty North Central states those who want to raise professional training standards by legal enactment may well concentrate up-

*This report was given before the Association Meeting in Chicago March 15th 1929.

*Charters, Waples: *The Commonwealth Teacher Training Study*, University of Chicago Press, 1928

on the abolition of the "blanket" certificate.

The committee, however, would like to reiterate its contention that the profession should set its own standards rather than depend upon legal enactments. One might think that legislatures would seek to protect the interests of children entrusted to them, by the theory that education is a chief function of the state, by fixing high standards of professional training for teachers. We all know, however, that the practical workings of politics result in the establishment of the barest minimums. Professional groups working on the fringe of the known and seeking continuously to bind bit by bit the unorganized unknown to the organized known must set standards for themselves far in advance of what they may expect popular thinking to incorporate into law.

The last aspect of the problem of professional training specifically referred to in the motion creating this committee, that of practice teaching, is the one upon which the committee desires the most serious study of this association. It invites attention to the Colebank study entitled *Practice Teaching in the Colleges of the North Central Association*, published in the December North Central Association Quarterly as a means of pointing out some of the emphases this committee would like to stress.

This study gives a comprehensive survey of the practices, plans, arrangements and facilities for the observation and practice of teaching in 119 institutions of the 159 in the North Central Association with facilities for student teaching upon the secondary school level. Those of you who have been interested enough to study this report have not failed to note the disparity of practice upon some important elements where a unity of practice might well be expected. It is not our purpose to re-present the details of that study here since they are in print elsewhere, but for purposes of illustrating the differences in practice, the following questions are asked and answered with information contained in the report.

1. If one were in charge of a train-

ing school of 100 high school pupils, how many student teachers could he provide with adequate practice teaching?

One school's practice shows that on a unit of 100 pupils it would give practice in teaching to 140 student teachers, a second to 175 and a third to 190 a year. At the other extreme one school would give practice teaching to but 13 student teachers per unit of 100 students, another 12, another 10 and a fourth but 6.

2. For each training school teacher, how many student teachers should one undertake to train?

For every training teacher at work one school gives practice to 35 student teachers, another 30, another 23. At the other extreme again we find a school that has for each training teacher only one student teacher; another only .8; and another but .3 of a student teacher. The American Association of Teachers Colleges considers a ratio of 18 students to one teacher as standard.

3. How many periods of class teaching should a practice teacher get to do?

Several schools answer that 10 forty-five minute periods is enough—450 minutes of practice. Others say 150 sixty minute periods—8000 minutes.

4. How many student teachers should there be for each supervisor?

Fifteen, sixteen, thirty-five, are answers from three schools. Two, three, four, are answers from the other extreme. The American Association of Teachers Colleges sets the standard at eight.

But let us have a curtain to this comedy. If you care for more, study the report as printed. In short the conditions with respect to practice teaching in North Central Association institutions are these:

1. There were 159 North Central Association institutions engaged in teacher training upon the secondary school level last year when Mr. Colebank made his study.

2. Of the 119 of these who filled out the questionnaire 33 were members

of the American Association of Teachers Colleges. The other 86 were either not eligible to membership or did not care to assume the responsibility of membership. The figures for all North Central Association institutions in 1927 show:

Class A—Higher Institutions as rated by the Commission.....163

Class A—Institutions belonging to the American Association of Teachers Colleges 4

(Some of these are represented in the 50 credited to Class B since their Schools of Education are separately listed as Class B institutions).

Class B—Higher Institutions — mainly teacher training schools— as rated by the Commission..... 54

Class B—Institutions belonging to the American Association of Teachers Colleges 50

3. Many secondary school teachers are trained in Class A schools. Class B schools train mostly elementary school teachers.

4. The standards affecting practice teaching set by the American Association of Teachers Colleges* for its members (mostly influencing elementary teacher training in North Central Association schools) are higher than those voluntarily assumed by non-member North Central Association schools (where most secondary school teachers are trained) even though some voluntarily maintain standards equal to those of the American Association. The standards set by the American Association, though not necessarily objective, are reasonably specific and are regarded as the best standards now in general use. It can be seen from the statements given above that they do not affect many North Central schools training secondary school teachers. It is therefore proposed that in the interim which must necessarily elapse before the North Central Association can set up objective standards of its own in the

field of practice teaching that the standards of the American Association of Teachers Colleges be adapted and applied by the Commission on Higher Institutions under the powers granted it by the constitution of this association. This committee respectfully invites the attention of the Commission on Higher Institutions to the possibilities of improving teacher training in North Central Association schools by such action.

This action with respect to observation of teaching and participation in teaching might not be urged so seriously were it not for the fact that it believes that facilities for practice teaching are highly essential if an institution is to train teachers effectively. Its contention is that experience in observation of the work of skilled teachers and opportunity to participate in appropriate phases of the teaching process under proper supervision either as a part of their pre-service or in-service training is one of the most essential elements in the process of training teachers. The opinions of experts, the teachings of educational psychology and the experience of other professions all support the position of this committee in this respect. It holds the belief that if the North Central Association desires to continue a committee at work in this field, attention may well be concentrated upon observation of teaching and practice in teaching as the most promising field for committee work.

This committee, therefore, proposes and recommends:

1. That the Commission on Higher Institutions undertake to adapt and apply the standards of the American Association of Teachers Colleges touching practice teaching to all North Central Association institutions training secondary school teachers until such time as the North Central Association sets standards of its own in this field.

2. That this committee work be continued under the direction of the Unit Courses and Curricula Commission but with a reorganized committee more widely and ably representative of the in-

*For standards see 1928 Yearbook—American Association of Teachers Colleges

stitutions comprising the North Central Association.

3. That the business of this reorganized committee be to undertake to set up objective standards in the field of teacher training in general but more especially standards for judging adequate facilities for and effective programs of observation of and participation in teaching for the use of this association in making lists of schools which may properly undertake the professional training of secondary school teachers. The Commonwealth Study makes committee work in this field more promising than ever before. The task is to determine what conditions must obtain and what facilities must exist in order that student teachers may best learn how to do well those activities of teachers most frequently performed and most difficult to learn which can be learned through practice under

supervision. A subordinate task would be to determine for which of these activities pre-service training is practical and which would have to be learned during in-service training.

4. That this reorganized committee be empowered upon behalf of the North Central Association to endeavor to enlist the interest of the Bureau of Education in its work with the object of inducing the Bureau to aid in financing this work from funds now available to the Bureau for research in secondary education.

L. W. Brooks, Wichita, Kansas
H. H. Ryan, Ann Arbor, Michigan
M. H. Stuart, Indianapolis, Indiana
F. L. Bacon, Evanston, Illinois
G. W. Willett, La Grange, Illinois
F. E. Henzlik, Lincoln, Nebraska
Will French, Lincoln, Nebraska

Report of the Committee on the Professional Qualifications of College Teachers

Gentlemen:

Your committee, appointed in February, 1925, "to study the proposal to require professional training for instructors teaching the first and second year' work in colleges and universities and to ascertain the attitude of the members of the Association regarding the requirement of educational qualifications for college and university teachers," presented a report¹ at the 1927 meeting of the Association. That report contained the following recommendations which were first approved by the Commission on Higher Education and later by the meeting of the Association itself.

I. RECOMMENDATIONS MADE IN 1927

"1. Its study of the question referred to it leads your committee to believe that the improvement of college education would be retarded rather than promoted by the enactment at this time of a rule requiring professional training of instructors in the first and second years of college and university work. It, therefore, recommends that no such action be taken at this time.

"2. It does recommend, however, that this Association call to the attention of college authorities in this territory the numerous efforts now being made throughout the country to improve college instruction, particularly in the first and second college years, and that they be requested to consider the manner in

which similar efforts might find application in their own institutions and to the possibility of requiring or providing professional training for beginning instructors in the college field.

"3. It is further recommended that this Association authorize the appointment of a committee to make a further study of the need for, and the methods of, providing professional training for college teachers; that the committee be authorized to co-operate with the Association of American Colleges, the Association of American Universities, and similar organizations, in so far as overlapping interests may be apparent; that it be authorized to examine, in so far as possible, the practice of individual institutions in improving college instruction, and that it report progress at the annual meeting in 1928.

"In the opinion of your Committee, this Association can render a valuable service in the improvement of college instruction by a systematic study of college problems and by a continuous program of co-operation with those persons who are directly responsible for such improvement. The professional training of college teachers will require many years for its achievement. Beginnings are being made and should be encouraged in ways that will generate the least hostility and the maximum of helpful co-operation from all concerned.

"The function of the proposed committee would be somewhat as follows:

"1. The collection and systematiza-

¹N. C. A. Quarterly 2: 1 (June, 1927) p. 108 ff.

tion of available knowledge that may be used in courses on college education. Scattered through the literature there is much material of an empirical and discursive nature that would be useful if brought together and interpreted in terms of modern problems and methods. There is also considerable material in the psychological and related literature that bears upon college education, and a growing body of experimental literature bearing directly upon the subject. Probably the orderly systematization of this entire literature in usable form is the most important first step to be taken. Some such work is already under way by individuals and groups of individuals. Such work should be encouraged, and the ground prepared for its cordial reception by college authorities.

"2. The second function of such a committee would be to encourage research in the problems of college education. If the committee could do nothing more than give publicity throughout this Association to the work now being done in this field it would encourage those engaged in such work and stimulate others to like endeavor. It would also tend to create a favorable attitude on the part of college teachers and administrators so that published research would find sympathetic readers. The committee might find it possible to go beyond the work of publicity of research results and stimulate the scientific study of pressing college problems.

"3. A third function of the committee would be to carry out the second and third recommendations made above and to encourage college administrators to recognize the place of professional knowledge and training in the selection of college teachers, to study ways by which such teachers may be secured, and

to bring home to such college officers the attitude of this Association upon this important matter.

"4. In connection with this relationship to college administrators it would be the function of such a committee to study the methods of 'in service training' for college instructors, to promote the adoption of methods found useful and to develop other methods in the improvement of college teaching.

"5. The committee should further address itself to graduate schools whose chief business is the training of college teachers and urge upon them the recognition of the professional training of graduate students. The imagined hopelessness of this task is probably exaggerated. The pressure which modern conditions places upon these schools to provide thorough academic scholarship and extreme specialization is very real and may not be lightly regarded. Were they to fail in this matter, universities would lose their present commanding position in civilized life. It should not be assumed, however, that graduate schools will remain indifferent to the genuine vocational needs of their own students when those needs are clearly portrayed. Nor is it to be supposed that the welfare of future college freshmen and sophomores is taken lightly by the mature members of university faculties who constitute the graduate school. If it can be shown that the interests of either or both of these two groups of students can be furthered by the offering and, in time, requiring professional preparation in the graduate schools, it is to be expected that such offerings will come to pass with the full approval of graduate faculties. The burden of proof is upon those who believe in professional training to show that education

has something to offer and that it may be required of graduate students without too great a loss on the side of academic training. If education can make this case for itself by actual demonstration it will in due time so appear to those in control of graduate training and time will gradually care for the irreconcilable fundamentalists whose prejudices may seem to block progress."

II. RECENT DEVELOPMENTS AFFECTING THE COMMITTEE'S PROBLEM

As a result of action by the Association the Committee has continued to study the problem referred to it. At the meeting in 1928 a report of progress without recommendation was made. The Committee now begs to submit a final report with recommendations somewhat more specific than those contained in the earlier report. Preliminary to offering its recommendations, however, the Committee would call attention to certain developments bearing upon the problem which it has been called upon to consider since the first appointments of this Committee.

1. Developments in the Study of College Education

The first of such matters to be considered is the enlivened interest in the whole matter of college education and an altered attitude toward many of its problems. Some of these changes have recently been canvassed by the Secretary of the Committee and reported in the 1929 Year Book of the National Society of College Teachers of Education.² In this canvass there appeared very strikingly a tendency largely absent from the discussion of college problems a decade

ago, a tendency to investigate and experiment with educational issues, an effort to inject into discussion both the spirit and something of the methods of study characteristic of the scholarly investigations which have made such astonishing headway in other fields of learning.

A survey of published literature has also been undertaken, and although this analysis is far from complete, it reveals with perfect clearness that college teachers, college administrators, and students of college education are in search of factual data that will enable them to understand better their complex problems, and to improve their practices.

Our initial attempt at analysis of the literature is based on an examination of 1162 titles appearing in the decade from 1919 to 1928 inclusive. This material totals 48,535 pages of 300 words each, in all about fourteen and a half million words. This material has found the light through 128 avenues of publication. These figures are tentative and are certain to be increased as this study proceeds, but the decade would appear to have produced books, monographs, bulletins, and articles in periodicals exceeding in total the equivalent of one hundred volumes of respectable size on the matter of college education.

a. THE EXTRA-MURAL APPROACH

One group of studies consists of those made by agencies outside the institutions in which the study is made. Such studies, in general, involve more than one institution and attempt to study a problem that is shared in common by numbers of colleges.

We may place first in this group the list of publications issuing from the United States Bureau of Education.

²Chap. II in Year Book of the National Society of Teachers of Education, 1929.

Within the decade 1919-1928 comprised in our initial analysis, approximately one hundred titles are to be credited to this source. Publications range from mere pamphlets of a few pages to volumes of several hundred. In all, they comprise approximately 8,000 pages of printed matter and cover a wide variety of problems from the statistical tables of enrollments and like matters, to the discussion of property, curricula, organization, administration, etc.

In this same period the Carnegie Foundation for the Advancement of Teaching has issued twenty-one publications covering such matters as college entrance requirements, cost of present-day education, the analysis of professional education, college athletics, training of teachers, and other like problems. Our table credits them with about 4,000 pages.

The next most productive organization according to our figures is the College Entrance Examination Board with fourteen titles and 3,000 pages.

Other organizations making substantial contributions are:

American Council on Education—326 pages, 2 titles.

Association of American Colleges Bulletin—981.8 pages, 8 titles.

Association of American Universities Conf. Proceedings—49.3 pages, 4 titles.

National Research Council—139.4 pages, 2 titles.

North Central Association of Colleges and Secondary Schools—1021.6 pages, 29 titles.

Trans. of Ohio College Association—178.2 pages, 20 titles.

The figures in some of these cases are incomplete.

Summing up this group of studies, we have a total of 233 titles issued by 22

organizations, the whole constituting approximately 22,132 pages of printed matter, or the equivalent of 55 volumes of approximately 400 pages each.

b. NEW VENTURES IN COLLEGE EDUCATION

In a second division we may group studies centering about what may be characterized as new ventures in college education. The decade has seen the creation of a surprising number of new colleges most of which are still too much in the developmental stage for any final appraisal of their endeavors. They are frequently described as experimental schools, but they are only partially, or, not at all, controlled so far as a check upon results is concerned. Out of dissatisfaction with the existing colleges on the part of an individual or social group there arises an attempt to create a new type of institution, departing significantly in purpose, clientele, form of organization, curricula, or methods of instruction from the prevailing or traditional college. The creation of such a new college, with a new student clientele, a new faculty, and all the accompaniments necessary to render them effective is an enterprise of large scope involving much administrative machinery as well as large funds, and its very magnitude and complexity preclude the checking of results in the immediate and narrow denotation of the term. Those whose enthusiasms and inventive genius plan such endeavors are not unmindful of desirable outcomes, but they look for them in the less tangible and unmeasurable achievements and attitudes of their students, in the future lives of their graduates, or in the altered conditions in society.

The name of Antioch, Rollins, Stephens, Whittier, Sarah Lawrence, Claremont, and Reed will indicate the grouping we have in mind, and closely related to these are certain radical endeavors and proposals at Wisconsin, Stanford, Michigan, and Hopkins. About all of these new ventures there is accumulating a body of printed matter that should have its interpretation directly in connection with the institutions concerned. Such discussion lies outside our present purpose.

C. STUDIES WITHIN INSTITUTIONS

Here we have placed the direct efforts of existing institutions to analyze and study immediate problems while going forward with their customary activities. The assumption in such cases holds that the traditional program of the institution is a worthy one, useful and effective, but subject to improvement in certain of its phases. Experimentation here is upon problems more narrowly conceived and more easily subjected to controlled study.

Effort at such experimental study is claimed by a large number of colleges, and a limited number of institutions give ample evidence that college education is to be studied as well as practiced and standardized. From these centers a library of factual knowledge about college education is slowly accumulating, as is evidenced by a bibliography that for the decade exceeds six hundred and fifty titles.

If we add to these titles the studies by individuals, which in many cases are not easily distinguished from them so far as origin is concerned, and which are even more frequently akin to them in purpose and content, we shall have a total of nearly a thousand titles, making

about 8,000,000 words or the equivalent of 50 volumes.

This array of titles is a striking evidence of the concern which American colleges entertain concerning their own problems. It is equally clear also that some of this material is highly important as throwing new light upon many old problems as well as contributing an analysis and specification of new issues. It is an interesting fact that the problems of student personnel stand largest in this array, and that problems of the curriculum stand second. This emphasis is in clear contrast to the problems treated in the publications comprising our first group, where matters of administration and organization hold the dominant role. It is our view that this emphasis is distinctly encouraging, since it indicates that those who are concerned with college problems are placing first in their thinking the very fundamental educational issue of the student and his curriculum.

It was our thought that the number of institutions to be considered in this connection would be relatively small and that the published material could be quickly surveyed. Our efforts, however, have revealed that approximately one hundred thirty colleges claim credit for studies of this sort. If we add to this group those institutions in which a local member of the faculty has made an investigation and published results, the total is more than two hundred. In other words, from more than six hundred colleges and institutions of higher education listed in the Directory of the United States Bureau of Education, it would appear that approximately one-third of them have done something by way of investigating the local problems of education.

While the number of colleges in our group is large, the tabulation shows that interest is greatly emphasized in a number of institutions. One institution in particular is credited with more than sixty different titles, and seven others have twenty or more.

The survey of scholarly studies in college education shows two things. In the first place the diversity and rapidity of change in college education exceeds all previous experience in this country. The significance of many of these changes is undetermined but there can be little doubt that some of them are very important and indicative of alterations in the economic and social ideals of the American people. They reflect profound changes in conditions of living and in ways of thinking.

The second inference from this study is that college administrators and teachers are determined to understand better than before the nature of adolescent youth and the educational forces with which they deal. They propose to study these matters by all the technical methods which scholarship, scientific and otherwise, can offer to their aid. More than this, they propose to use their new understanding in the re-direction of instruction, curriculum and organization to the end of improving the educational opportunities of young men and women. They propose to substitute facts for platitudes in the discussion of college matters, and to drive out educational superstition with knowledge and understanding.

2. Faculty Qualifications for Public Junior Colleges

A second noteworthy development within the life of this committee is the prescription of professional qualifica-

tions for instructors in public junior colleges which constitute an outstanding development in college education within the past decade. This development frequently comes as an extension of the public high school, which already enjoys legal recognition both as regards support and a greater or less degree of regulation. One phase of this regulation relates to the qualification of high school teachers, and some degree of professional training is practically everywhere prescribed for such teachers. It is but a natural development of this practice that, as the high school curriculum is extended upward to the level of the junior college, the teachers in such college units should be required to meet the minimum requirements already in force for teachers on the lower level. Indeed, it is difficult to see how any administrative board, responsible both for the administration of a high school and a junior college, can fail to prescribe professional training requirements for teachers in the higher unit without relaxing such requirements as are already in force at the lower level.

One may be surprised, therefore, only at the rapidity with which regulatory action of the kind indicated comes to pass. A study³ of existing practices as of September 1, 1928, shows that in some form professional training requirements are now exacted in 11 states, 6 of which are in the territory of the North Central Association, and which is 24 per cent of all states now supporting junior colleges. The major portion of such requirements has been made effective since your Committee was first appointed, and they constitute but one evidence of rapidly changing conditions affecting college education.

³N. C. A. Quarterly, December, 1928.

3. Action by the Association of American Colleges

The Association of American Colleges maintains a Permanent Commission on the Enlistment and Training of College Teachers. At the Fifteenth Annual Meeting of the Association the report of this Commission was given a major place on a program which concerned itself throughout with the problems of the college teacher. The report, which received the unanimous approval of the Association, bears so directly upon the work of this Committee that it seems appropriate to quote it here in full. The text follows:

"REPORT OF THE COMMISSION ON THE ENLISTMENT AND TRAINING OF COLLEGE TEACHERS, JANUARY 10, 1929.

Part I

"The Training of Graduate Students for College Teaching.

A

"The Commission recommends that the Association transmit to the Graduate Schools of those institutions which are members of the Association of American Universities all that follows under this heading: The Association of American Colleges, consisting of those institutions which as a whole constitute the major source from which graduate students are derived and as a whole afford the major field of life-occupation for the graduates of graduate schools, earnestly requests the Graduate Schools of Arts and Sciences of the United States to give consideration to the following suggestions, approved by the Association at its annual meeting, January 10, 1929:

"1. That each Graduate School ascertain the proportion of its own graduates (recipients of the Ph. D. or equivalent degree) engaged in college teaching (limiting the inquiry, should it seem preferable, to graduates of the last ten years).

"2. That each Graduate School ascertain the proportion of its present doctoral candidates intending to engage in college teaching.

"3. That in the light of the facts thus ascertained each Graduate School inquire of itself whether it is doing all that it can rightly do to train its students for the profession of college teaching.

"We believe that the two major elements in the graduate training of prospective college teachers should continue to be mastery of the content of the subject to be taught and some experience in research within the field of the subject to be taught.

"As suggestions of our own toward the perfecting of the graduate training of prospective college teachers we offer the following:

"4. We suggest that each Graduate School regularly ascertain from its doctoral candidates, at the time of their entrance into the Graduate School or soon thereafter, whether or not they intend to engage in college teaching.

"5. Since the college teacher should have a broad range of intellectual interest and experience, for the sake of both his students and his colleagues, we suggest that no graduate School admit to candidacy for the doctorate any student intending to engage in college teaching who has not a broad range of intellectual interest and experience. We do not consider it to be within the task of the Graduate School to give such interest and experience, which should in general be obtained before the beginning of graduate work; but we do believe that in the case of a student intending to engage in college teaching who has not such interest and experience the Graduate School should require that he obtain them—presumably, but not necessarily, through collegiate study for which no graduate credit should be given—before the student is admitted to candidacy for the doctorate.

"6. Since the college teacher has not merely the responsibility of knowing but has also the responsibility of conveying his knowledge and of stimulating other minds, we suggest that carefully consid-

ered effort be made—as is already done in many cases—to give to each graduate student intending to engage in college teaching an adequate training in methods of teaching as applied to the particular department of knowledge in which the student is working. We suggest further, in this connection, that so far as possible opportunity be provided for graduate students to watch the teaching of successful college teachers; and that in so far as graduate students are themselves employed as instructors or assistants such employment be supervised and be regarded as part of their own educational experience.

"7. Since the college enterprise is a single enterprise in which every college teacher should bear his part, and since every college teacher should have a good general understanding of the enterprise as a whole, we suggest that each Graduate School offer to students intending to engage in college teaching an adequate and varied course on the American College. Such a course should deal in particular with progressive instructional and curricular movements; and should include some account of the main types of departmental and general administrative service. We do not suggest that such a course be made a requirement; but we do suggest that each department be urged to accept such a course toward the meeting of its own quantitative requirements.

"8. While we believe that significant experience in the field of research should be given to every prospective college teacher, we believe that the graduate schools in general now tend to stress unduly the relative importance of such experience for students intending to engage in college teaching; and we therefore suggest that for such students there be an optional quantitative relaxation of the research requirement in favor of some additional mastery of subject matter or of other educational resources. Such relaxation might take the form of the assignment of presumably smaller and shorter thesis problems.

"9. Since college officers seeking in-

structors often deal directly with the heads of departments in Graduate Schools, and since such college officers need all possible evidence with regard to the teaching ability of each candidate, we suggest that departmental heads regard it as a part of their task to acquaint themselves with all readily ascertainable evidence as to the teaching ability of their graduate students.

B

"The Commission recommends that the Association adopt the following resolution:

"College officers seeking new instructors from among graduate students or recent graduate students should make insistent inquiry of the Graduate School representatives with whom they deal as to the training and experience of the candidate with respect to teaching.

Part II

"The Training of Young Instructors in Respect to Teaching.

A

"The Commission recommends that the Association adopt the following resolution:

"The development of the teaching ability of newly appointed instructors is a major responsibility of the College.

B

"The Commission recommends that the Association make to each of its constituent members the following recommendation:

"That every college maintain a standing committee on the improvement of instruction, which committee shall have as a major responsibility the making of local plans for the development of the teaching ability of newly appointed instructors.

C

"The Commission offers herewith a series of specific suggestions in this connection and recommends that the Association transmit them to each of its member institutions with the general ap-

proval of the Association. It is understood that these suggestions will differ in local applicability.

"1. That for every newly appointed instructor there be a faculty adviser, who should in general be either the head of the department concerned or another member of the department, designated by the head.

"2. That the process of advice be centered mainly, not on class room visitation, but on the making and reviewing of periodic reports by the young instructor on his work. For such reports no form should be used. They should state informally the results achieved during the period under review; should indicate clearly the problems met and should contain plans for continuing work. They should contain as well individual analyses of problems of various members of the class—some or all—with respect chiefly to particular difficulties met, but with respect also to special abilities and any other matters of notable personal interest.

"3. That if class room visitation by the adviser take place, it should take place as a method of getting light on problems or plans previously considered in the reports, and by previous agreement between the instructor and the adviser; and that if it take place at all, it be sufficiently frequent to remove any sense of abnormality.

"4. That, whenever appropriate, the course in which the main work is done by a newly appointed instructor be regarded in fact and in name as a co-operative course, the newly appointed instructor and his adviser being the co-operators.

"5. That newly appointed instructors be invited and expected occasionally to attend classes taught by older successful teachers in their own department or in allied departments.

"6. That just so far as may be possible, newly appointed instructors be invited to co-operate by occasional lectures or otherwise in the advanced courses of the department.

"7. That there be held occasional staff conferences of allied departments

(or, in a large institution, of a single department) for the discussion of instructional problems.

"8. That in the case of a course having several sections, one man be designated as responsible for the conduct of the course as a whole, and that he maintain a reasonable degree of co-ordination in the work of the several sections.

"9. That annual reports of the work of newly appointed instructors be made by departmental heads to the committee on the improvement of instruction referred to above.

Respectfully submitted,
Marshall S. Brown,
Raymond M. Hughes,
James L. McConaughy,
Otis E. Randall,
Charles L. Raper,
Ernest H. Wilkins, Chairman."

The major emphasis of the foregoing report is directly in line with the thought of this Committee as represented in its 1927 report.

4. Action by the American Council on Education

At the annual meeting of the American Council on Education in 1927, the enlistment and training of teachers was a subject of discussion. The result of this discussion is represented by the following extract from a report made to the Institutional Members of the American Council on Education:

"Reports were presented describing the activities in this field of the Association of American Colleges, the American Association of University Women, and the North Central Association. As a result of the ensuing discussion it was voted that the Council appoint a special committee on this subject to plan co-operation among the various interested organizations.

"At its meeting on September 24th the Executive Committee appointed the following committee for this purpose: President C. C. Little, chairman, Miss Mary Van Kleeck, Professor Hardin

Craig, Dr. Charles H. Judd, Dean Otis E. Randall, and Dean William E. Smyser. This committee met on January 20, with all members present except Dr. Judd. Dr. Henry Suzzalo met with the committee as a proxy for Dr. Judd.

"The committee agreed that the first step in planning better procedure for enlisting and training college teachers consists in forming a clearer and more specific statement of the characteristic modes of action of successful college teachers. In spite of the wide diversity of opinions on this subject it was the sense of the committee that a very useful statement could be secured if the colleges would co-operate with the committee in accordance with the following plan:

"The committee presents herewith a series of eleven brief statements, each one of which describes a characteristic mode of action of a successful college teacher. These statements are not presented as in any way final or complete but merely as examples of the manner of statement. Discussion of what should be included in these items in the committee itself was found useful in clarifying and organizing each member's ideas on this important topic:

"What Does a College Teacher Do?"

1. Master the subject to be taught.
2. Organize the content in reasonable perspective.
3. Make an estimate of the situation and of the students.
4. Define the specific values they should get from the work.
5. Develop the art of helping them get the values sought.
6. Test student achievement and compare results with those of others.
7. Weigh the evidence and improve instruction.
8. Co-operate with colleagues in administration.
9. Discover significant relationships among thoughts and things.
10. Develop a coherent vision of progress.
11. Create tools that make realization of the vision possible.
12. Etc., Etc.

"The Committee invites the institutional members of the Council to co-operate with it by organizing at each institution a group or groups of faculty members who may be interested to discuss this question and formulate in this form a statement that all members of the group agree to as satisfactory. The procedure is that the group on assembling takes the statement herewith presented and discusses it. There will be at the first meeting wide diversity of opinion. The group adjourns for a week or two while each member of the group prepares in the given form a statement that accurately expresses his or her conception of the teacher's activities. At the second meeting of the group these statements from individual members are compared, criticized, and synthesized. This process is continued until the group reaches a statement to which all agree.

"When the group has reached its final statement, this is returned to the Council for comparison and compilation with other such statements from other institutions. In this way there will be ultimately reached a final statement that represents the consensus of opinion of college teachers on this subject.

"The success of the experiment depends largely on making the several statements from different colleges comparable in form. The form submitted is one which has been found effective both as a method of stating objectives and characteristic activities of a professional worker and as one that is useful in detecting ability in young men and women before actual try-out as teachers. Each statement describes a specific type of action. The activities described in each statement are different from those described in each other statement. It should be possible to determine by observation how well a teacher functions in each of the activities stated.

"Your institution is invited to co-operate with the Council in this experiment. If faculty members are sufficiently interested to undertake the formulation of their conceptions of college teaching by the process just outlined, it

is believed that college teaching will begin to improve very shortly because of the clarification as to objectives and methods which such a discussion brings to all participating teachers.

"Further justification of this procedure is given in the Supplement to the Educational Record for January, 1928, under the title "Finding Potential Leaders." The office of the Council is glad to supply additional copies of this circular letter or of the Supplement to the Record without charge to every institution that is willing to co-operate in this enterprise. Further information may be secured either from the Council office, or from the members of the committee as follows:

- President C. C. Little,
University of Michigan.
- Miss Mary Van Kleeck,
Russell Sage Foundation, N. Y. C.
- Professor Hardin Craig,
University of Iowa.
- Dr. C. H. Judd,
University of Chicago.
- Dean Otis E. Randall,
Brown University.
- Dean William E. Smyser,
Ohio Wesleyan University."

5. Finally, the Committee would call attention to a series of studies prepared and published by Mr. M. E. Haggerty, who has acted as Secretary of the Committee, bearing upon the problems which we have been called upon to consider. Wherever the contingency of the study was specific, the manuscript has been submitted to the Committee for approval prior to publication, and these papers may therefore be considered an integral part of this report. Copies are attached hereto. In chronological order of publication the titles are as follows:

1. The Professional Training of College Teachers. N. C. A. Quarterly, Vol. II, No. 1, 1927, p. 108.
2. The Improvement of College Instruction. Sch. & Soc. Vol. XXVII, No. 681, Jan. 1928.

3. N. C. A. Questionnaire on Experimental Studies in College Education. May 1, 1928.

4. Training College Instructors (A Committee Outline). N. C. A. Quarterly, Vol. III, No. 2, Sept. 1928. pp. 165-166.

5. Occupational Destination of Ph. D. Recipients. Ed. Record, October, 1928.

6. Teaching at the University of Minnesota, in "How We Teach." Assn. of American Colleges Bulletin, Vol. XIV, No. 5, Nov. 1928.

7. Faculty Qualifications for Junior Colleges. N. C. A. Quarterly, December, 1928.

8. The Improvement of Medical Instruction. Assn. of American Medical Colleges Bulletin, January, 1929.

9. Current Educational Re-adjustments in Liberal Arts Colleges. Chap. II in Year Book of the National Society of Teachers of Education, 1929.

10. Experimentation with the College Teacher's Problems. Address delivered before the Association of American Colleges on Jan. 11, 1929, in Chattanooga, Tenn.

III. PRESENT RECOMMENDATIONS

Notwithstanding the rapidly altering conditions surrounding the college as thus indicated, your Committee still doubts the desirability of a coercive standard making "professional training of instructors in the first and second year's work in colleges and universities" mandatory in the Province of the North Central Association. It does not so recommend.

The Committee is inclined, however, to go somewhat further in its recommendations than it did in its first report. It desires to make two recommendations as follows:

A. College Reports.

The first recommendation relates to reports from the colleges which are

members of this Association. It is recommended that:

1. This Association shall require each member of collegiate rank to report upon the following items relating to the professional equipment of the faculties of its undergraduate colleges:

a. The professional training of its faculty.

b. The professional training of all newly appointed members of its faculties.

c. The measures taken by the institution to provide, encourage, and require professional training for its faculty after first appointment.

2. This Association shall require its members of collegiate rank to report all the activities it employs in studying its own problems by scholarly methods. The problems covered by this requirement shall include matters of student personnel, curricula, instruction, organization, and administration.

B. Graduate Training.

The second recommendation relates to graduate training and is in harmony with the action of the Association of American Colleges. It is recommended that this Association invite the co-operation of the universities having graduate schools in the Association of American Universities to the end that graduate students preparing for college teaching shall be better prepared for their future work. In presenting the matter to the officers of such universities attention should be called to the following facts:

a. Approximately 75 per cent of all holders of Ph. D. degrees find their vocations in college teaching.⁵

b. There is an obvious tendency to bring the problems of higher education

within the province of scholarly investigation, to extend the methods of experimental study to many matters wherein personal judgment and experience only have hitherto been the criteria for practice.⁶

c. Recent years have witnessed the development of a large literature bearing upon the problems of college education.⁷

d. This literature covers a wide range of specific matters which may be roughly grouped under four heads as follows: 1. Student personnel; 2. College curricula; 3. College instruction; and, 4. College organization and administration.

e. An acquaintance with this literature is a desirable equipment for every college teacher, and the proper time for an introduction to it is the period devoted to graduate training.

In view of these facts the universities training college teachers should be requested to provide in regular courses for the study of this literature by such graduate students as intend to teach in colleges, and the pursuit of such study should be encouraged by the responsible administrative officers.

IV. CONTINUANCE OF THE COMMITTEE

Whether the work of studying the qualifications of college teachers shall be continued by this or some other committee depends upon the policy of the

⁶Sch. & Soc. Vol. XXVII, No. 681, Jan. 1928. Assn. of American Colleges Bulletin, Vol. XIV, No. 5, Nov. 1928. Assn. of American Medical Colleges Bulletin, January, 1929.

⁷Sch. & Soc. Vol. XXVII, No. 681, Jan. 1928. Chap. II in Year Book of the National Society of Teachers of Education, 1929. Address delivered before the Association of American Colleges on Jan. 11, 1929, in Chattanooga, Tenn.

⁵Ed. Record, October, 1928.

Association as to the promotion of investigation into matters with which the Association must continue to deal. Certain facts are clear. The problem of recruiting and training a sufficient number of young men and women satisfactorily to staff American college faculties is an unsolved problem. Eloquent evidence upon this point is forthcoming from every survey of existing conditions yet made by any individual or organization. It is further clear that until much progress is made in this matter the North Central Association will be confronted by many perplexing difficulties in the matter of college accrediting which occupies so large a share of its energies.

Two lines of action are open to the Association:

1. It may confine its activities wholly to matters of administration, the setting of standards and the accrediting of institutions in terms of these standards, or

2. It may study the conditions underlying the setting of satisfactory standards and through such study set in motion forces that will make possible the realization of progressively higher standards.

If the policy of the Association is the

purely administrative one, then it would seem necessary to have only an occasional committee to look into existing conditions. Should the Association desire to pursue the broader policy and, through study and research, seek to aid colleges to achieve more desirable conditions, then it would appear that it might well foster a continuing examination of means for the improvement of college faculties. Should the latter view prevail, it would seem wise to envisage the whole matter of recruiting and training under a single committee and not alone the narrower aspect of professional training. Concerning this matter the Committee makes no recommendation.

Respectfully submitted,

J. R. Effinger,
T. W. Gosling,
M. E. Haggerty,
J. M. Wood,
W. E. Smyser,

Chairman of the Committee.

Note—By action of the Association, upon recommendation of the Commission on Higher Education, this report was approved, and the present committee was continued for the purpose of carrying out its recommendations.

Faculty Training in Higher Institutions

*Final Report of the Committee on Faculty Scholarship, 1929**

Your committee on faculty training made a somewhat comprehensive investigation last year of the extent to which the liberal arts colleges in the membership of the Association were meeting the standards relating to the training of members of the faculty. In the main this piece of investigation related to the extent to which the faculties of the liberal arts colleges had secured the advanced degrees of A. M. and Ph. D. or had done equivalent work. Although the committee was convinced that the present standards of the Association, especially in their practical application, were far from satisfactory in determining the efficiency of college teachers, we did not consider it wise to recommend any changes in the standards. The discussion and proceedings of both the commission and of the general association subsequent to our report only confirmed us in this opinion. It seems obvious that we are far from satisfied with several of our methods of testing achievement and efficiency in college and university work. In the midst of this wide-spread and at times somewhat acrimonious discussion, it behooves us to beware of making decisions too quickly and impulsively. It still seems best to your committee that we should not alter the standards relating to faculty training until further investigation and discussion more clearly indicate the correct path to be followed.

We hope it is not necessary to say again that your committee on faculty training realizes, quite as well as some who like to wax eloquent on the subject, that the A. M. and Ph. D. degrees are

often doubtful tests of a good teacher in the liberal arts college; but we still believe that a reasonable and common-sense application of this test has some value. For that reason the committee recommended last year, and the commission adopted the recommendation, that the secretary of the commission should correspond with those liberal arts colleges whose faculties were greatly below the average in the scholarship or training of their faculties "with the suggestion that they are expected to improve this condition." This, we understand, our secretary has done. In fact his remarkably comprehensive statistical survey of the higher institutions in our membership recently published in the *Quarter Bulletin* not only bears testimony to his industry but puts us all under heavy obligation to him.

Probably no subject connected with the problems of the liberal arts college is attracting more attention just now than is the question of good teaching. It has been one of the chief subjects of discussion in the meetings of nearly all associations dealing with the problem of the college. Such organizations as our own North Central Association, the American Council on Education, the Association of American Colleges, the National Society of College Teachers of Education, the Carnegie Foundation for the Advancement of Teaching, not to mention individual colleges and universities, have all in recent years appointed committees and issued reports dealing with this important problem. In fact, two committees of our own association are at present dealing with the question.

The Association of American Colleges, at its recent annual meeting in Chattanooga, devoted practically its whole program to the theme of "The College Teacher." The result of the discussions at this annual meeting of the

*This report was approved by the Commission on Higher Education and recommended to the Association for adoption. Final action will be taken at the annual meeting in 1930. A previous report by the same committee will be found in the *Quarterly*, Vol. III, No. 2 pp. 172-9 (September, 1928).

Association of American Colleges was the adoption of a report of the Commission on the Enlistment and Training of College Teachers, the association voting at the same time that this report should be sent to the deans of graduate schools, to the various regional standardizing associations, and to the Association of American Universities, with the suggestion that the report be referred to their appropriate committees. Your committee has given careful consideration to this report and the recommendation from the Association of American Colleges and believes that the wisest and best thing that this commission and our general association can do at this time is to concur in the action of the Association of American Colleges. We, therefore, recommend that the report sent to us by the Association of American Colleges be approved by our commission and also recommended for approval to our general association.

This report from the Association of American Colleges is in the following terms:

PART I

The Training of Graduate Students for College Teaching

A

The Commission recommends that the Association transmit to the Graduate Schools of those institutions which are members of the Association of American Universities all that follows under this heading:

The Association of American Colleges, consisting of those institutions which as a whole constitute the major source from which graduate students are derived and as a whole afford the major field of life-occupation for the graduates of graduate schools, earnestly requests the Graduate Schools of Arts and Sciences of the United States to give consideration to the following suggestions, approved by the Association at its annual meeting, January 10, 1929:

1. That each Graduate School ascertain the proportion of its own graduates (recipients of the Ph.D. or equivalent

degree) engaged in college teaching (limiting the inquiry, should it seem preferable, to graduates of the last ten years.)

2. That each Graduate School ascertain the proportion of its present doctoral candidates intending to engage in college teaching.

3. That in the light of the facts thus ascertained each Graduate School inquire of itself whether it is doing all that it can rightly do to train its students for the profession of college teaching.

We believe that the two major elements in the graduate training of prospective college teachers should continue to be the mastery of the content of the subject to be taught and some experience in research within the field of the subject to be taught.

As suggestions of our own toward the perfecting of the graduate training of the prospective college teachers we offer the following:

4. We suggest that each Graduate School regularly ascertain from its doctoral candidates, at the time the their entrance into the Graduate School or soon thereafter, whether or not they intend to engage in college teaching.

5. Since the college teacher should have a broad range of intellectual interest and experience, for the sake of both his students and his colleagues, we suggest that no Graduate School admit to candidacy for the doctorate any student intending to engage in college teaching who has not a broad range of intellectual interest and experience. We do not consider it to be within the task of the Graduate School to give such interest and experience, which should in general be obtained before the beginning of graduate work; but we do believe that in the case of a student intending to engage in college teaching who has not such interest and experience the Graduate School should require that he obtain them—presumably, but not necessarily, through collegiate study for which no graduate credit should be given—before the student is admitted to candidacy for the doctorate.

6. Since the college teacher has not merely the responsibility of knowing, but has also the responsibility of conveying his knowledge and of stimulating other minds, we suggest that carefully considered effort be made—as is already done in many cases—to give each graduate student intending to engage in college teaching an adequate training in methods of teaching as applied to the particular department of knowledge in which the student is working. We suggest further, in this connection, that so far as possible opportunity be provided for graduate students to watch the teaching of successful college teachers; and that in so far as graduate students are themselves employed as instructors or assistants such employment be supervised and be regarded as part of their own educational experience.

7. Since the college enterprise is a single enterprise in which every college teacher should bear his part, and since every college teacher should have a good general understanding of the enterprise as a whole, we suggest that each Graduate School offer to students intending to engage in college teaching an adequate and varied course on the American College. Such a course should deal in particular with progressive instructional and curricular movements; and should include some account of the main types of departmental and general administrative service. We do not suggest that such a course be made a requirement; but we do suggest that each department be urged to accept such a course toward the meeting of its own quantitative requirements.

8. While we believe that significant experience in the field of research should be given to every prospective college teacher, we believe that the graduate schools in general now tend to stress unduly the relative importance of such experience for students intending to engage in college teaching; and we therefore suggest that for such students there be an optional quantitative relaxation of the research requirement in favor of some additional mastery of subject matter or of other educational resources. Such relaxation might take the form of

the assignment of presumably smaller and shorter thesis problems.

9. Since college officers seeking instructors often deal directly with the heads of departments in Graduate Schools, and since such college officers need all possible evidence with regard to the teaching ability of each candidate, we suggest that departmental heads regard it as a part of their task to acquaint themselves with all readily ascertainable evidence as to the teaching ability of their graduate students.

B

The Commission recommends that the Association adopt the following resolution:

College officers seeking new instructors from among graduate students or recent graduate students should make insistent inquiry of the Graduate School representatives with whom they deal as to the training and experience of the candidate with respect to teaching.

PART II

The Training of Young Instructors in Respect to Teaching

A

The Commission recommends that the Association adopt the following resolution:

The development of the teaching ability of newly appointed instructors is a major responsibility of the College.

B

The Commission recommends that the Association make to each of its constituent members the following recommendation:

That every college maintain a standing committee on the improvement of instruction, which committee shall have as a major responsibility the making of local plans for the development of the teaching ability of newly appointed instructors.

C

The Commission offers herewith a series of specific suggestions in this connection and recommends that the Association

transmit them to each of its member institutions with the general approval of the Association. It is understood that these suggestions will differ in local applicability:

1. That for every newly appointed instructor there be a faculty adviser, who should in general be either the head of the department concerned or another member of the department designated by the head.

2. That the process of advice be centered mainly, not on class room visitation, but on the making and reviewing of periodic reports by the young instructor on his work. For such reports no form should be used. They should state informally the results achieved during the period under review; should indicate clearly the problems met; and should contain plans for continuing work. They should contain, as well, individual analyses of problems of various members of the class—some or all—with respect chiefly to particular difficulties met, but with respect also to special abilities and any other matters of notable personal interest.

3. That if class room visitation by the adviser take place, it should take place as a method of getting light on problems or plans previously considered in the reports, and by previous agreement between the instructor and the adviser; and that if it take place at all, it be sufficiently frequent to remove any sense of abnormality.

4. That, whenever appropriate, the course in which the main work is done by a newly appointed instructor be regarded in fact and in name as a co-operative course, the newly appointed instructor and his adviser being the co-operators.

5. That newly appointed instructors be invited and expected occasionally to

attend classes taught by older successful teachers in their own department or in allied departments.

6. That, just so far as may be possible, newly appointed instructors be invited to co-operate by occasional lectures or otherwise in the advanced courses of the department.

7. That there be held occasional staff conferences of allied departments (or, in a large institution, of a single department) for the discussion of instructional problems.

8. That, in the case of a course having several sections, one man be designated as responsible for the conduct of the course as a whole, and that he maintain a reasonable degree of co-ordination in the work of the several sections.

9. That annual reports of the work of newly appointed instructors be made by departmental heads to the committee on the improvement of instruction referred to above.

At the annual meeting of the commission last year the report of the committee on graduate degrees, of which R. M. Hughes was Chairman, was also referred to our committee. The report recommended certain general principles and certain general requirements for the master's degree and the degree of doctor of philosophy. This whole subject is more or less intimately connected with the recommendations already made by your committee. We have no recommendations to make regarding the report from President Hughes' committee except that we again register our approval of the principles advocated in that report.

Respectfully submitted,
C. S. Boucher
Kendrick C. Babcock
Charles H. Rammelkamp,
Chairman

Preliminary Report of the Committee on Financial Standards in Catholic Institutions

PREAMBLE

1. At the meeting of the Commission in 1928, the Secretary made the following suggestions:

"Your attention is called to the practice of the Association of American Universities relative to the substitution of contributed services of faculty members for endowment which reads as follows:

'Services of members of the faculty contributed through permanent organizations for the support of educational programs may be capitalized in satisfaction of the requirement for endowment, the estimate of the equivalent to be based on payments ordinarily made for similar services of the instructors correspondingly trained, by institutions in the same section and operating under similar conditions.'

For several years the officers of this commission have been following a similar practice, without, as far as I know, direct authorization from this body. In view of the importance of this matter to our Association, I believe we should regularize this procedure. I wish, therefore, to recommend that a special committee be appointed to consider and report at the next meeting of the Association on the matter of the basis for accepting the contributed services of members of the faculty who belong to religious orders in lieu of the present endowment and income requirements." *N. C. A. Quarterly*—June, 1928—III—p. 78.

2. Appointment of the Committee asked for by the Secretary was authorized by action of the Commission.

3. Under date of October 24th notifications were sent out by the Secretary of the Commission appointing the Committee. The members are: President, R. M. Hughes, Chairman, the Reverend

William F. Cunningham, C. S. C., and the Reverend Alphonse M. Schwitalla, S. J. This Committee met at the Stevens Hotel in Chicago on Monday, January 7, 1929 and decided to make to the Commission the Recommendations herein-after formulated.

4. This Committee wishes to express its grave doubt regarding the value of the financial standards now in force in the North Central Association as a measure of collegiate excellence. It bases its misgivings upon such facts as are, for example, contained in a report submitted in 1928 on the "Educational and Financial Data for Twenty-nine Accredited Colleges."¹ Moreover, inspectors of colleges have repeatedly stressed the fact that the impressions which they receive on visiting an institution bear little if any relation to the size of the endowment possessed by that particular institution. If this is true concerning financial standards in general the difficulties seem to be aggravated when an attempt is made to evaluate in financial terms the value to an institution of voluntary free service.

5. Nevertheless, since the Committee has been appointed and has undertaken the task of formulating modes of applying Standard No. 12 to institutions under Church control, it respectfully submits the following recommendations:

RECOMMENDATIONS

A. In General

1. In establishing a monetary salary basis upon which the equiva-

¹In that report it was shown that a coefficient of correlation between rating on the basis of inspection of a college and endowment income per student is as low as $+.078 \pm .125$; between rating and per cent of income from endowment, is as low as $-.045 \pm .125$; between rating and per cent of income per student, is as low as $-.049 \pm .125$. (*N. C. A. Quarterly* Sept. 1928—III—p. 223.)

lent endowment value of voluntary service is to be estimated, it is recommended that the median or average teacher salary in colleges and universities, as submitted to the North Central Association in 1928 in the report of Dr. Floyd W. Reeves and Professor Dale Russell² and in the report of President C. H. Rammelkamp³, be used as a basis.

2. Accordingly it is recommended that \$2,300.00 be taken as the basic salary equivalent for the voluntary free service of instructional officers. The justification for this figure may be found in Appendix A to this report.

3. It is also recommended that a salary equivalent for the voluntary free service of administrative officers and auxiliary staffs be established by acceptable methods. Suggestions may be found in Appendix B to this report.

4. It is recommended that these salary equivalents be used to meet both the income and the endowment standards as required by Standard 12 of the North Central Association.

B. Salary Equivalents as Income

5. The voluntary free service of each instructional and administrative officer and of the members of the auxiliary staff will be accepted as equivalent income with such reservations as are formulated below.

6. From the total salary equivalent of the entire teaching, administrative and auxiliary staff there should be deducted the actual cost to the institution of the maintenance of such staffs:

- (a) If the college books show this figure clearly, this amount should be accepted as the main-

tenance cost and should be subtracted from the gross salary equivalent.

- (b) If the college books do not show clearly the cost of maintenance of the staff, this cost shall be estimated at \$400.00 per staff member per year, and the amount thus computed shall be deducted from the total estimated salary equivalent.
- (c) Further deductions from the salary equivalents shall be made in the case of those communities which pay an assessment for each instructor to a central provincial or other office. (Reference is here made to the so-called "provincial tax" designated variously in different religious communities.)
- (d) In the case of priests who are also members of religious orders, no deduction shall be made for maintenance, on the theory that the financial returns for their occasional ministerial services probably compensates the institution for the cost of maintenance.
- (e) In the case of priests who are not members of religious orders and who are receiving a partial salary, the actual amount of the salary received from the college or university shall be deducted from the basic salary equivalent.

7. To meet the income standards the net contributed salaries of instructors, administrative and auxiliary personnel as calculated in No. 6 above shall be added. This sum, the total salary equivalent, together with endowment income and income from all additional sources other than student fees, must equal a minimum of \$25,000.00, provided that the income from student fees, exclusive of fees for board and lodging, amounts also to \$25,000.00, subject to such modifications as are contained in Standard No. 12.

²Standards for Accredited Colleges, N. C. A. Quarterly, September, 1928—III 2—p. 214.

³Faculty Training in the Liberal Arts College, N. C. A. Quarterly, September, 1928, III, 2—p. 172.

C. Salary Equivalents as Endowment

8. The net amounts as computed in Nos. 5 and 6 shall be regarded as 5% income on an equivalent endowment. This equivalent endowment shall be considered as part of the total endowment of the institution, subject again to such modifications as are contained in Standard No. 12.

D. Concluding Recommendations

9. It is the sense of the Committee that in attempting to establish these salary equivalents, the rules here formulated are intended for an average institution of 100 to 200 students and for the average grade of instructional officers in them. If in some particular institution conditions are found notably above average conditions, a sense of fairness will readily dictate a correspondingly higher valuation of the salary equivalent for an individual teacher or official, particularly when the relative strength of one or several Departments in such a school is not offset by weakness in others. Hence:

- (a) In strong institutions in which the instructional staff shows preparation considerably above the average a salary equivalent for one or more teachers may be fixed which approximate the average maximum salary for full-time professors.
- (b) In those institutions which have large and fully organized Departments with the recognized gradations in academic rank the salary equivalent for particular instructors shall be the average value found for each academic rank by Dean Rammekamp in the study to which reference has already been made, unless it be obvious that particular instructors, by reason of their preliminary training and their achievement, are entitled to a salary equivalently approximat-

ing the maximum for their particular rank.

10. It is finally recommended as follows:

- (a) That the present Committee be continued for another year.
- (b) That during this period and on the basis of the present report the Committee make an intensive study of at least five institutions in the North Central area; the types of institutions to be as follows:
 - 1. A University under Catholic control with fully organized and large departmental personnel;
 - 2. A College for men of from 100 to 200 students under the control of a religious order of men;
 - 3. A College for men of from 100 to 200 students under the control of the Secular Clergy;
 - 4. A large college for women of over 200 students under the control of a religious order of women;
 - 5. A smaller college for women of from 100 to 200 students under the control of a religious order of women.
- (c) That this Committee report its conclusions based on such a study to the North Central Association a year from the acceptance of the present report.
- (d) That final action on this matter be taken at the meeting of 1930 to become effective at the beginning of the School session 1931.

R. M. Hughes, Chairman
Alphonse M. Schwitalla, S. J.
Wm. F. Cunningham, C. S. C.

APPENDIX A

A Suggested Method of Arriving at a Basic Salary Equivalent for Teachers Giving Voluntary Free Service

- 1. It is recommended that the basic salary equivalent for each instructor

complying with Standard No. 5 and in an institution complying with Standard No. 4, administering a department as specified in Standard No. 4, should be \$2,300.00.

2. This figure is based upon the two reports mentioned in No. 1 of the Recommendations of this Committee and specifically upon certain details in these reports. Reeves and Russell in Table No. 7 of their report, submitted at the North Central Association meeting in 1928,

	Full-Time Profes.	Full-Time Assoc. Profes.	Full-Time Assist. Profes.	Full-Time Instructors
Average minimum salary	\$2,692.60	\$2,467.92	\$2,049.04	\$1,571.94
Average maximum salary	3,960.15	3,167.14	2,760.00	2,270.08
Average salary	3,280.47	2,829.67	2,388.21	1,915.47

give the "Average salary of teachers for groups of accredited institutions, classified upon the basis of endowment income 1925-26." These figures are supplied for 32 accredited institutions and the average salary of teachers is \$2,464.00. They divide their thirty-two institutions into three groups; eight with the largest endowment income, eight with the smallest endowment income, and sixteen with medium endowment incomes, and they supply figures for teachers' salaries for each of these groups in relation to (a) total endowment income, (b) endowment income per student, and (c) percentage of income from endowment.

Taking in each case the middle group of sixteen institutions, we obtain the following figures:

Sixteen institutions constituting the middle group:

	Average Teachers' Salaries
(a) When classified upon the basis of <i>endowment income</i>	\$2,283.00
(b) When classified upon the basis of <i>endowment income per student</i>	2,352.00
(c) When classified upon the basis of <i>percentage of income received from endowment</i>	2,263.00

The average of the average salary of teachers computed on this three fold basis

2,299.00

It seems fair, therefore, to take \$2,300.00 as the basic value of teachers' salaries for computing the value of equivalent endowment derived from voluntary free service.

3. The fairness of this value becomes more convincing if we accept the salary values established by the study of Dean Rammelkamp on faculty training. He submits the following table: (N. C. A. Quart. Sept. 1928—III—2, p. 179)

It will be seen, therefore, that the basic value as here recommended is somewhat below the average salary of full-time assistant professors and just slightly above the average maximum salary of full-time instructors as found by President Rammelkamp in his study of the fifty-eight representative universities and colleges.

4. The value \$2,300.00 as a basic salary value is still below the average salary values of median institutions as determined by a study of the educational and financial data for twenty-nine colleges accredited by the North Central Association and submitted at the meeting in 1928 by Reeves and Russell. In this report the average salary of full-time faculty members for the lowest institution was given as \$1,910.00, for the highest institution as \$3,426.00, and for the median institution as \$2,408.00.

APPENDIX B

A Suggested Method for Arriving at A Basic Salary Equivalent for Administrative Personnel and Other Officials and Employees

1. In arriving at a basic salary value for full-time presidents of the colleges of which there is question in this report a minimum of \$5,000.00 should be acceptable. This figure is based upon a salary double that of the basic value for the full-time teacher.

2. The basic salary of Deans in these institutions might be evaluated as approximately \$4,000.00. If the Dean in addition to administrative duties acts also as one of the departmental directors, the salary equivalent might be raised to approximately \$5,000.00

3. The basic salary for librarians should be \$2,500.00, according to a figure derived from the statistics published in a late number of the American Library Association Bulletin.

4. The basic salary equivalent for as-

sistants to the various administrative officers can be fairly arrived at by estimating them at between 40% and 75% of the salary equivalents of the officials whom they are assisting.

5. The basic salary equivalent of persons doing the work of building supervisors, janitors, etc., will depend largely upon the geographical location of the institution and the type of service rendered. It is recommended that in each case the examiner of the institution arrive at a fair equivalent by questioning.

Report on the Academic Equivalents in Meeting North Central Standards for Teacher Training of Curricula Preparatory to the Catholic Priesthood, Secular and Religious

Preliminary Committee Report

1. At the request of the Secretary of the Commission on Institutions of Higher Learning of the North Central Association, a Committee was appointed to study the financial standards for Catholic Institutions. In the instructions received from Dr. Zook the Committee was asked to undertake the additional duty of "attempting to set up equivalents for training received by the members of the various Catholic Orders." Dr. Zook says:—"For instance, I have great difficulty in evaluating the faculty of many Catholic institutions where individuals have perhaps only the M. A. degree, but are also members of the Jesuit Order."
2. In his letter to Dr. Hughes of November 28th, Dr. Zook wrote as follows: "You mention also the recognition of the Jesuit Order. If you find it possible to consider the other Catholic orders also, I will appreciate it. At present we have no way of knowing how to evaluate the faculty where much of their training has consisted in the preparation for membership in a religious order. I believe that my previous letters explain this phase of the question more fully."

It was explained to the Committee by Dr. Hughes that the inquiries of Dr. Zook applied also to the members of the Secular Clergy, who are conducting colleges.
3. The Committee discussed this question at the meeting held in Chicago on January 7th, 1929.
4. The Committee agreed to proceed as follows:
 - a. A representative of the Jesuit Schools is to be asked to draw up a statement of the training given in his Order and, on the basis of this summary, to present recommendations for the evaluation of degrees and equivalents to meet the North Central Standards.
 - b. This summary of Jesuit training, together with the recommendations, is to be submitted as a sample statement to the authorities of other Religious Orders controlling schools which have sought or might expect to seek accrediting by the North Central Association, with the request that a statement similar to the one presented by the Jesuit Order be prepared for their own Order.
 - c. This request is to be sent to representatives of the following Religious Orders of Men, since these control schools in this territory as follows:

To the Secular Clergy of
Columbia College, Dubuque, Iowa
St. Ambrose College, Davenport, Iowa
Mt. St. Charles College, Helena, Montana.

To the Benedictines
 St. Benedict's College
 To the Brothers of Mary
 Dayton University
 To the Fathers of the Holy Cross
 Notre Dame University
 College of St. Thomas
 To the Congregation of the Mis-
 sions
 DePaul University
 To the Jesuits
 Creighton University
 John Carroll University
 Loyola University
 Marquette University
 St. Louis University
 St. Mary's College
 St. Xavier's College
 Regis College.

- d. After receiving the answers the Committee determined to be guided by the character of the information accumulated before making its report to the North Central Association at the March meeting in 1929.
5. The determinations of the Committee as stated in 4 a, b, and c, were carried out and on February 21st a

summary of Jesuit Training was sent, together with a covering letter, to the various members of the Secular Clergy and of the Religious Orders mentioned in 4 c.

6. Extensive replies were received from all of them but uniformly the correspondents were of the opinion that the importance of the matter demands the deference of a final report. It may be said as a preliminary statement that there is fair unanimity of opinion regarding the recommendations which should finally be made by the Committee.
7. In view of the wishes of practically all of the parties interested, the Committee recommends its own continuance for another year, at which time a final report will be submitted to the Commission on Institutions of Higher Learning of the North Central Association.

Respectfully submitted,

R. M. HUGHES

Chairman

Alphonse M. Schwitalla, S. S.
 Wm. F. Cunningham, C. S. C.

Evening and Other Part-time Education

A Committee Report

As is well known to every person in this audience, the movement for adult education has been spreading rapidly over the country. The sharp line of separation which used to exist between the school days of an individual and his later work in life is growing less distinct all the time. We now recognize more clearly than formerly the virtue of bringing the student in college in close practical contact with the professional or technical work which he expects to follow after graduation. Witness the co-operative engineering courses, practice teaching provisions, and the clinical facilities for doctors and dentists as evidences of this tendency. On the other hand, the person who has left the school or college curriculum and is engaged in some regular employment but who wishes to advance in his profession or in his ability to take his place more effectively in society at large now realizes that he must continue his education at the point where he left off. Consequently it is becoming more and more usual for those who are employed at some useful service during the day to study at night and to attend some organized evening or extension class or to do their class assignments by correspondence.

To the credit of the colleges and the universities be it said that they were among the first educational agencies to recognize their obligations to the part-time students who desired to continue their education. Even yet, many higher institutions hold themselves considerably aloof from the communities in which they are located and prefer a cosmopolitan student body of regular students rather than to offer their facilities in the evening or at other times to earnest, part-time students who wish to improve themselves. This situation is rapidly passing, however, and now it is

no unusual thing, especially in our urban centers, to see the college buildings all aglow at night, and throngs of busy students passing from one class room to another just as naturally as do the so-called regular students in the day-time. It is a great work, and we are only beginning to realize its ultimate possibilities in the future development of educational policies and national welfare!

Commendable as is the impetus behind this movement and the generous response of the colleges to meet the needs of these students, it seems possible and even likely that we have so far taken care of it largely or entirely as a supplement to our regular college or university work. The question, therefore, arises as to whether the work for these part-time students for college credit is on the same level of performance as is true of the so-called regular college work; whether we are not giving the part-time students what is left over and making them pay liberally for it; and finally, whether the growing amount of instruction for part-time students, without adequate provision for it, may not be interfering with the standards of work otherwise possible in the regular sessions. If the instruction of part-time students is equally valuable as that for full-time students—and it certainly is—we should offer them equal facilities and standards of work in a manner so as to maintain, without question, proper standards for the regular students.

At the annual meeting of the Commission on Higher Institutions of the North Central Association two years ago the following resolution was adopted:

"Voted to appoint a committee to report under what conditions an accredited institution may operate a night branch or separate branch, apart from its regular day-time college work, without jeopardizing its standing."

Much as we regretted to trouble the institutions, it seemed quite impossible to make a report without more complete and later information than was available. Consequently the Committee on Evening and Extension Education sent the inevitable questionnaire to all the institutions accredited by the association, which covers 20 states in the Middle and South West. Reports were received from 58 colleges and universities (24 public and 34 private), 4 junior colleges; and 24 teacher training institutions; total 86. Reference to the regular triennial statistics secured by the Association indicates that in all but a few instances the remaining institutions do not offer evening, extension, or correspondence work. It is believed, therefore, that the present study is not only representative but that it includes all but a small porportion of the students enrolled in classes of this character in the North Central area.

The increasing popularity of evening, extension and correspondence study is attested to by the fact that the enrollments in nearly all these forms of supplementary education have grown rapidly in recent years, especially the evening, late afternoon, and Saturday morning classes for part-time students which, in two years, 1924-25 to 1926-27, increased from 32,578 to 43,502, or 34%. (See Table I). Of the students reported for the year 1926-27, 72% were enrolled in the colleges and universities, 7.4% in the junior colleges, and 20.6% in the teacher training institutions.

Another interesting situation in connection with evening, late afternoon and Saturday morning classes is the comparison in growth between publicly controlled and privately controlled institutions respectively. The former increased in enrollment during these two years from 18,070 to 24,775, or 37%, while the later gained 29%, 14,508 to 18,727. The publicly controlled institutions, therefore, state and municipal, seem to be developing this type of work with greater vigor than the others. There are, however, several outstanding examples of state universities in the terri-

tory which are all but neglecting this very important field of service.

The number of students enrolled in extension classes off the campus increased from 22,688 in 1924-25 to 23,479 in 1926-27, or 3.5%. Of the students reported for 1926-27, 58.4 were enrolled in the colleges and universities, and 41.2% in the teacher training institutions. There was an insignificant enrollment in the junior colleges, (.08%). Likewise correspondence study students during the same two years increased from 31,210 to 36,273, or 16.2%. Of the students reported for 1926-27, 76.7% were enrolled in the colleges and universities, and 23.3% in the teacher training institutions. The junior colleges enrolled no correspondence students.

These facts seem to justify the conclusion that correspondence work and extension classes away from the college or university campus were developed prior to, and with greater vigor than, evening or Saturday morning classes on the campus itself, and that now institutions, especially those located in centers of population, are realizing that their best opportunities for serving part-time students are right at home in their own class rooms. Hence, the remarkable increase in evening and Saturday morning enrollment in a period of only two years as compared to that for other fields of part-time education. Even now, however, there are state universities and colleges which engage in a considerable program of correspondence study and extension class work in centers located away from the university campus to the utter neglect of evening school work at their very doors. All this is in the face of the fact that, in my opinion, the evening school offers the best opportunity to reach or exceed the standard of work accomplished in the regular day session.

One of the interesting facts revealed by this study is that the income received from students for evening, extension, and correspondence study is considerably in excess of the amount paid out in salaries for instruction. For the year 1926-27, 44 higher institutions, includ-

ing colleges, junior colleges, and teacher training institutions, received a larger income from part-time students than they expended for instruction; two received the same amount, and 13 stated that they expended more for instruction than they received from student fees. The total amount received from student fees for part-time instruction in 1926-27 was \$1,334,690, or 42.7 % more than the amount paid out for instruction; namely, \$935,545. (See Table II). There are, of course, two factors which modify this situation; namely, the expenditures do not include overhead and administration, and in a few instances the expenditures for part-time work are low because the regular salaries cover both regular and part-time instruction. Nevertheless it seems clear that the evening, late afternoon, Saturday morning, extension, and correspondence study work is more than paying its expenses; and it is, therefore, not a burden on, but rather a help to, the regular sources of income. Whether this is entirely a defensible situation I very much doubt. Exactly why the part-time, evening or extension class students, a large proportion of whom are not financially able to go to college regularly, should be called upon to pay the entire expenses and more of what little college education they can get is not at all clear. I believe that it would be more commendable to recognize the obligation we have to expend a part of our income from endowments and taxation to meet the needs of this rapidly increasing body of serious minded students.

In order to get at the problem which had been assigned to us, it occurred to the committee that it would be desirable, wherever possible, to compare the conditions under which instruction for part-time students is given with that which obtains for the regular full-time students. In that way we hoped to arrive at some conclusions as to whether the part-time students were securing their class work for college credit under more favorable or less favorable conditions than the regular students.

Preparation of Students

One obvious matter of importance was to compare the academic preparation of the part-time students with the regular students. As is well known, it is the custom for colleges and universities to waive the regular entrance requirements for special students 21 years of age or over, who are not candidates for degrees. A larger proportion of the part-time students included in this study fall under the classification of special students. Assuming that practically 100 % of the students enrolled in the regular curricula are high school graduates it is interesting to note that, of the part-time students enrolled for college credit, 89 % (29,280 out of 32,724) of the part-time evening, late afternoon and Saturday morning students, 78 % (16,187 out of 20,786) of the extension students off the campus, and 91 % (23,448 out of 25,874) of the correspondence study students in 1926-1927 were estimated to be high school graduates. (See Table III). From these figures it is obvious that the academic preparation of all types of part-time students, particularly the extension students is not equivalent to that required of the regular students. In view of the greater maturity of the part-time students, it is doubtful, however, whether any damage is being done to academic standards unless it be in the case of the extension classes held off the campus. This situation may bear some further scrutiny.

Size of Classes

Another easy comparison between the two types of enrollment is in connection with the size of classes. (See Table IV) The triennial statistics gathered by the North Central Association show that for the colleges and universities 83.9 % of the classes comply with the standard of 30 students or less in number. On the other hand, only 77.1 % of the evening, late afternoon and Saturday morning classes held on the campus of these institutions comply with the standard. However, 85.6 % of the extension classes enroll 30 students or less. If there is

any virtue in this standard, which some people doubt, and which the results of research so far have been unable to justify, the evidence is somewhat in favor of the regular college enrollment.

Hours of Instruction

An attempt was also made to ascertain whether the number of hours of actual instruction for a semester or quarter hour of credit was the same for the part-time students as it is for the regular students. (See Table V). Although the data are not as extensive as might be wished, the reports show that 29 colleges, 8 teacher-training institutions, and 2 junior colleges require the same number of hours of actual instruction for college credit as for regular students, while 12 colleges and 6 teacher training institutions, or 31% of the total, require less than the regular number of hours of actual instruction for college credit.

In case of extension classes, 17 colleges require the same amount of actual instruction for college credit as for regular students, 11 less and 2 more; while 6 teacher training institutions require the same amount of instruction and 9 less.

Again it appears clear that the standard of actual hours devoted to instruction for college credit is not so high for the part-time evening and extension students as it is for the regular students.

Preparation of the Faculty

Finally an attempt was made to compare the preparation of the faculty for the part-time evening, extension and correspondence study work with that for the regular college work. For purposes of brevity I shall use comparable data for the colleges and universities with that for all institutions engaged in part-time instruction. (See Table VI).

For the regular instruction in the colleges and universities 35.4% of the faculty hold the Ph. D. degree or the equivalent; for the part-time students 26.8%. Two years of graduate training: colleges and universities, 7.2% ; all part-time instruction 19.6%. A. M. or equivalent, colleges and universities: 33.5% ; all part-time instruction, 32.2%. A. B. or equivalent: colleges and universities,

21.5% ; all part-time instruction, 17.4%. Less than A. B.: colleges, 2.4% ; all part-time instruction, 3.0%.

The preparation of the faculty in the teacher training institutions, both for the regular session and for the part-time work, appears to be lower than that possessed by the staff in the colleges and universities.

A summary of this situation shows that 42.6% of the teachers in the regular college work have completed two or more years of graduate work above the bachelor's degree, whereas 46.4% of the teachers of the part-time students have done two or more years of graduate work. Obviously if academic preparation including the Ph.D. degree means anything, and I am one who believes it does, the comparison is in favor of the part-time instruction.

Academic Rank

Of the total number of teachers engaged in the evening, extension, and correspondence study work, 1339, or 57%, are of the rank of assistant professors or above; 516, or 22%, are regular instructors; and 514, or 21%, are special part-time instructors employed for this work. (See Table VII). While it is well known that it is frequently difficult to secure as devoted service from part-time instructors, there are some compensating advantages. The fact that more than one-half of this instruction is done by regular members of the faculty of the rank of assistant professor or above shows that evening, extension, and correspondence study work is being done largely by the upper ranks of the faculty. In this respect it compares very well with the situation in the regular session.

One of the interesting features of the investigation related to the basis of salaries for part-time evening and extension class work. Of the 44 colleges and universities reporting, only 11 uniformly include the part-time work in the regular salary, that is they do not pay extra salaries for the part-time work; sixteen others pursue both policies; and seventeen uniformly compensate their teachers for the part-time work

over and above their regular salaries. In the latter institutions, 50% of the part-time salaries for all ranks, assuming 15 semester hours to be a teaching load, were on the basis of \$1500 or less; 34% on the basis of \$1500 to \$3000; and the remainder, 16%, above \$3000. It is evident that part-time instruction in these institutions is not being paid for on as high a basis as the regular teaching load. What effect this fact may have on the quality of teaching is an interesting question. Personally I see no reason why any college teacher should be expected to teach part-time classes, some of which are located miles from the campus, for less than the regular rate of compensation. I doubt very much whether it is a defensible condition.

Another very important portion of this investigation relates to the amount of teaching which members of the faculty undertake in the regular session and in evening or extension classes respectively. This part of the investigation reveals the degree to which institutions conform to the standard of a maximum of 16 hours of teaching when the classes of part-time students are added to their regular teaching load.

In order to secure information on this question, questionnaires were sent to individual members of the faculty, who were engaged in instructing part-time students. Replies were received from 921 such persons located in 44 institutions; 657 of them, or 71% comply with the North Central regulation and teach 16 hours or less per week, including both regular and part-time instruction, while 254 of these teachers, or 29%, exceed the number of hours permitted. Of this latter number 90 teachers, or 11% of the total, exceed the North Central standard without including the extra classes for part-time students which they hold.

Among the 44 institutions there are actually 18 institutions in which the median number of semester hours taught by those members of the faculty who instruct part-time students exceeds sixteen semester hours per week.

I believe that anyone will admit that

this is a serious situation. In fulfilling the obligation for the instruction of part-time students a number of institutions are requiring, or strongly tempting, members of their faculty to undertake additional instruction in evening or extension classes for extra compensation, thus making it difficult, if not impossible, for these members of the faculty to keep up with their respective fields of work, or to improve themselves through research and advanced study. When one adds all other forms of extra service in which college teachers engage, such as have been set forth recently in the bulletins of the General Education Board and the Society for the Promotion of Engineering Education, the situation seems all the more serious. Certainly if the standard of sixteen semester hours of teaching is sufficient for teachers in regular college work it is also sufficient when classes for part-time students are included in the program of college work.

From the evidence which has been adduced in this report it appears as if the number of part-time evening, late afternoon, Saturday morning, extension, and correspondence study students is rapidly increasing, and, therefore, is absorbing a considerable proportion of the energy of the institutions; that approximately 75% of this work is now being done by the regular colleges and universities; and that this type of work is more than self supporting and therefore not a drain on the regular income from endowment or taxation. A comparison of the regular students with the part-time students shows that the part-time students are academically not so well prepared as the regular students; that the classes of the part-time students, except extension classes, are larger than they are in the regular day session; that the amount of actual hours of instruction is less for the part-time students than it is for the regular students; but that on the other hand the academic preparation and the academic rank of the faculty which instructs the part-time students is equal to or superior to that of the staff which instructs the regular students. Exactly how to evaluate these facts is a bit

difficult. There are doubtless improvements in instruction for part-time students which should be made as speedily as possible; but, on the other hand, measured by our imperfect standards of today, we have certainly placed this type of instruction close to, if not equal to, the standards of instruction for regular students in the majority of institutions.

*Recommendations

The committee wishes to recommend therefore:

1. That all instruction for part-time students enrolled in courses for college credit at accredited higher institutions of this association be done on the same or equivalent standards as that for students

*The first and third recommendations were adopted as printed. The second was amended to read as follows:

"That the acceptance of an institution as an accredited institution by this Association automatically accredits the work of its courses for college credit for students in extension work on the same basis as in the regular divisions of the institution, provided that not more than thirty semester hours of extension work be credited toward a degree and that at least one year be spent in residence toward a degree."

enrolled in the regular session. Deficiencies in this field of work, as in other divisions of the institution, will be regarded as sufficient cause for refusal to accredit an institution.

2. That the acceptance of an institution as an accredited institution by this association automatically accredits the work in its courses for college credit for part-time students on the same basis as in other divisions of the institution.

3. That standard 6 be amended as follows:

Between the words "teaching schedules" and "exceeding 16 recitation hours" add the words "including classes for part-time students." The standard would then read, "Teaching schedules, including classes for part-time students, exceeding 16 recitation hours or their equivalent per week, per instructor, will be interpreted as endangering educational efficiency."

R. A. Kent

A. Caswell Ellis

George F. Zook, Chairman.

[The Tables accompanying this report are to be found on the following pages—pages 243-247.]

EVENING AND OTHER PART-TIME EDUCATION TABLES

Table I. Enrollment

A. Evening, etc.—on Campus

	1924-25	1925-26	1926-27
24 Colleges (Public)	9,207	10,632	12,587
34 Colleges (Private)	14,508	17,045	18,727
—	—	—	—
58 Colleges (Total)	23,715	27,677	31,314
4 Junior Colleges	3,092	3,145	3,214
24 Teacher Training Institutions	5,771	6,761	8,974
—	—	—	—
86 Total	32,578	37,583	43,502

B. Extension—off Campus

	1924-25	1925-26	1926-27
24 Colleges (Public)	3,639	7,918	6,360
34 Colleges (Private)	6,259	7,103	7,420
—	—	—	—
58 Colleges (Total)	9,898	15,021	13,708
4 Junior Colleges	0	0	19
24 Teacher Training Institutions.....	12,790	10,922	9,680
—	—	—	—
86 Total	22,688	25,943	23,479

C. Correspondence Study

	1924-25	1925-26	1926-27
24 Colleges (Public)	15,572	16,898	19,173
34 Colleges (Private)	7,498	8,472	8,631
—	—	—	—
58 Colleges (Total)	23,070	25,370	27,804
4 Junior Colleges	0	0	0
24 Teacher Training Institutions	8,140	8,974	8,469
—	—	—	—
86 Total	31,210	34,344	36,273

Table II. Income from Fees and Expenditures for Instruction, 1927

	Fees	Expenditure for Instruction*	% Excess
20 Colleges (Public)	\$399,296.62	\$324,028.59	23.2
21 Colleges (Private)	664,674.61	436,351.98	52.3
—	—	—	—
41 Colleges (Total)	\$1,063,971.13	\$760,380.57	39.9
2 Junior Colleges	43,665.00	27,450.50	59.0
16 Teacher Training Institutions	227,054.30	147,714.31	53.0
—	—	—	—
59 Total	\$1,334,690.43	\$935,545.38	42.7

Table III. Enrollment for College Credit, 1926-27

A. Evening, etc.—on Campus				
	High School Grads.	%	Not High School Grads.	%
Colleges (Public)	5,368	83.0	1,120	17.0
Colleges (Private)	15,697	87.0	2,267	13.0
Colleges (Total)	21,065	86.0	3,387	14.0
Junior Colleges	650	94.0	44	6.0
Teacher Training Institutions.....	7,565	99.8	13	0.2
Total	29,280	89.0	3,444	11.0

B. Extension Classes				
	High School Grads.	%	Not High School Grads.	%
Colleges (Public)	7,409	63.0	4,278	37.0
Colleges (Private)	3,448	98.0	55	2.0
Colleges (Total)	10,857	71.0	4,333	29.0
Junior Colleges	19	100.0		
Teacher Training Institutions	5,311	95.0	266	5.0
Total	16,187	78.0	4,599	22.0

*The expenditure figures do not include overhead, usually about one-third the cost of instruction, nor do they include expenditures for salaries at some of those institutions in which the compensation for part-time instruction is a part of the regular salary.

C. Correspondence Study				
	High School Grads.	%	Not High School Grads.	%
Colleges (Public)	10,317	81.0	2,343	19.0
Colleges (Private)	8,151	100.0	.....	.....
Colleges (Total)	18,468	89.0	2,343	11.0
Junior Colleges				
Teacher Training Institutions	4,980	98.0	83	2.0
Total	23,448	91.0	2,426	9.0

D. Regular Session				
	Students Admitted	% of Total No. of New Students	No. of Institutions	% of Total No. of Institutions
1. Meeting Standards:				
With 15 units as required	68,367	94.5	163	100.0
2. Not Meeting Standards:				
a. With 14 units	1,047	1.4	80	49.1
b. With 13 units	161	.2	31	19.0
c. With less than 13 units	142	.2	20	12.3
Total regular students not meeting standards	1,350	1.9	83	50.9
d. Special students	2,631	3.6	115	70.6
Total all students (including specials) not meeting stand- ards	3,965	5.5	129	79.1
Total	72,348		163	

Table IV. Size of Classes

A. Evening Classes				
	Colleges— Total	Colleges Public	Colleges Private	Grand Total
Total Number of Classes	2,443	598	1,845	2,833
Number of Classes meeting North Central Association standards	1,883—77.1%	479—80.1%	1,404—76.1%	2,166—76.5%
1. No. of classes with 1-10 students	604—24.7%	159—26.6%	445—24.1%	679—24.0%
2. No. of classes with 11-20 students	826—33.8%	205—34.3%	621—33.7%	949—33.6%
3. No. of classes with 21-30 students	453—18.6%	115—19.2%	338—18.3%	538—18.9%
Number of classes not meeting North Central Association standards	560—22.9%	119—19.9%	441—23.9%	667—23.5%
1. No. of classes with 31-40 students	250—10.2%	60—10.0%	190—10.3%	305—10.8%
2. No. of classes with 41-50 students	161—6.6%	33—5.5%	128—6.9%	185—6.5%
3. No. of classes with 51-60 students	69—2.8%	13—2.2%	56—3.1%	80—2.8%
4. No. of classes with over 60 students....	80—3.3%	13—2.2%	67—3.6%	97—3.4%
B. Extension Classes				
	Total Colleges—	Public Colleges	Colleges Private	Grand Total
Total Number of Classes	1,071	823	248	1,779
Number of Classes meeting North Central Association standards	917—85.6%	720—87.5%	197—79.4%	1,560—87.7%
1. No. of classes with 1-10 students	299—27.9%	239—29.0%	60—24.2%	517—29.1%
2. No. of classes with 11-20 students	415—38.7%	336—40.8%	79—31.9%	724—40.7%
3. No. of classes with 21-30 students	203—19.0%	145—17.7%	58—23.3%	319—17.9%
Number of classes not meeting North Central Association standards	154—14.4%	103—12.5%	51—20.6%	219—12.3%
1. No. of classes with 31-40 students	89—8.3%	65—7.9%	24—9.7%	131—7.4%
2. No. of classes with 41-50 students	33—3.1%	24—2.9%	9—3.6%	47—2.6%
3. No. of classes with 51-60 students	13—1.2%	8—1.0%	5—2.0%	18—1.0%
4. No. of classes with over 60 students	19—1.8%	6—.7%	13—5.3%	23—1.3%
C. Teacher-training Institutions				
	Junior Colleges	Teacher-training Institutions	Junior Colleges	Grand Total
Total Number of Classes	4	704	4	1,779
Number of Classes meeting North Central Association standards	4—100%	639—90.8%	4—100%	1,560—87.7%
1. No. of classes with 1-10 students	2—50.0%	216—30.7%	2—50.0%	517—29.1%
2. No. of classes with 11-20 students	2—50.0%	307—43.6%	2—50.0%	724—40.7%
3. No. of classes with 21-30 students	.....	116—16.5%	.....	319—17.9%
Number of classes not meeting North Central Association standards	.....	65—9.2%	.....	219—12.3%
1. No. of classes with 31-40 students	.....	42—6.0%	.....	131—7.4%
2. No. of classes with 41-50 students	.....	14—2.0%	.....	47—2.6%
3. No. of classes with 51-60 students	.....	5—.7%	.....	18—1.0%
4. No. of classes with over 60 students ....	.....	4—.5%	.....	23—1.3%

Table IV—Continued

C. Regular Day Session

TOTAL NUMBER OF CLASSES—30,839

		Per Cent
A. Number of classes meeting North Central Association Standards.....	25,880	83.9
1. Number of classes with 1-5 students	3,718	12.1
2. Number of classes with 6-10 students	4,319	14.0
3. Number of classes with 11-20 students	8,571	27.7
4. Number of classes with 21-30 students	9,272	30.1
B. Number of classes not meeting North Central Standards.....	4,959	16.1
1. Number of classes with 31-40 students	3,171	10.2
2. Number of classes with 41-50 students	890	2.9
3. Number of classes with 51-60 students	381	1.3
4. Number of classes with over 60 students	517	1.7

Table V. Hours of Instruction

A. Evening Education

	No. of Insts. Requiring Less Than Reg. Day Session	No. of Insts. Requiring Same as Day Session	No. of Insts. Requiring More Than Reg. Day Session
Colleges (Public)	3	12	0
Colleges (Private)	9	17	0
Colleges (Total)	12	29	0
Junior Colleges	—	2	0
Teacher Training Institutions ..	6	8	0
Total	18	39	1

B. Extension Classes

	No. of Insts. Requiring Less Than Reg. Day Session	No. of Insts. Requiring Same as Reg. Day Session	No. of Insts. Requiring More Than Reg. Day Session
Colleges (Public)	3	12	2
Colleges (Private)	8	5	....
Colleges (Total)	11	17	2
Junior Colleges .....	....	1	....
Teacher Training Institutions	9	6	....

Table VI. Preparation of Faculty

A. Regular Session

	Ph. D. or Equiv.	2 Years Graduate Work	M. A. or Equiv.	A. B. or Equiv.	Less than A. B.
Colleges and Universities	3,452	705	3,273	2,093	233
	35.4%	7.2%	33.5%	21.5%	2.4%

B. Part-time

	Ph. D. or Equiv.	2 Years Graduate Work	M. A. or Equiv.	A. B. or Equiv.	Less than A. B.
Colleges (Public)	263	171	281	105	7
	31.8%	20.7%	34.0%	12.7%	.8%
Colleges (Private)	233	110	248	130	45
	30.4%	14.3%	32.4%	17. %	5.9%
Colleges (Total)	496	281	529	235	52
	31.1%	17.7%	33.1%	14.8%	3.3%
Junior Colleges	13	9	9	3	0
	38.2%	26.5%	26.5%	8.8%	.0%
Teacher Training Institutions.....	102	158	219	160	16
	15.6%	24.1%	33.5%	24.4%	2.4%
Total	611	448	757	398	68
	26.8%	19.6%	33.2%	17.4%	3.0%

Table VII. Academic Rank

A. Regular Session

	Heads of Departments	Ass't Profs. and Above	Instructors	Part-time (All Ranks)
Colleges and Universities	2,779	6,568	2,407	781
		67%	25%	8%

B. Part-time

	Heads of Departments	Ass't Profs. and Above	Instructors	Part-time (All Ranks)
Colleges—Public	224	507	171	172
Colleges—Private	207	452	261	183
Colleges—Total	431	959	432	355
Junior Colleges	5	5	29	1
Teacher Training Institutions.....	123	375	55	158
Total	559	1,339	516	514
		57%	22%	21%

Preliminary Report of the Committee on Library Standards for Higher Institutions

Members of the Association will recall that the present standards of this body relating to college libraries cover the following points:

1. There are to be at least 8000 "live, well-distributed volumes exclusive of public documents, bearing specifically upon the subjects taught."

2. There is to be a definite annual appropriation for the purchase of new books and current periodicals. A minimum of five dollars per student is suggested.

3. The library is to be "professionally administered."

The committee at the one meeting which has been held decided that it would undertake studies that might furnish data regarding the adequacy of these standards. These data provide bases for:

1. A more specific interpretation of the present standards.

2. Adequate standards if the existing ones were found to be deficient.

The committee decided for the present to devote its attention almost exclusively to the problems of the college library as distinguished from those of the university. This decision was based on two considerations:

1. The belief that such help as might be given by a set of standards would mean much more to the colleges than to the universities in the Association.

2. The fact that standards that are highly satisfactory for a college may be quite inadequate for a university with its graduate and professional schools.

The committee made a still further temporary delimitation of its problems. Instead of undertaking a study of all phases of the library and its administration it decided to concentrate on library personnel and the question of what con-

stitutes, in terms of printed resources, an adequate college library.

The data collected in connection with the study of personnel should make it possible for your committee to make specific suggestions regarding the conditions essential for the professional administration of the library. The forms for this phase of the study have been prepared and the data will be collected during the present academic year.

To define a library in terms of the adequacy of its printed resources is an undertaking that will require much more time and work than may at first be realized. The lack of any basis for the present standard as expressed in volumes has been very effectively pointed out by Dr. Robertson of the National Council on Education. Were one disposed to defend such a standard a careful reading of his recent article would, I am certain, convince him of the weakness of his position.

In attacking this phase of its task the committee has gone on the assumption that the functions of the college library are determined in the main by the institution of which it is a part. In spite of the differences in the objectives of colleges the following appear under present conditions to be fairly clearly defined functions of college libraries:

- I. To meet the study needs of an undergraduate student body in so far as these needs are not met through the textbook, the lecture, and the laboratory.

The textbook is a less conspicuous factor in college teaching than it was a generation ago. In most departments of knowledge the trend has been from the use of one or a few books to the use of many. More recently there has been also some reaction against the excessive use of the lecture method. At present

there appears to be a very definite movement looking toward a greater degree of individualization of instruction, at least on the senior college levels. These three changes have made and are continuing to make new demands on the library. These new demands are manifest in such forms as:

- a. Large use of assigned readings in reserved books.
- b. Extensive use of books for more general reading than is represented by the definite prescription of reserved books.
- c. Resources for such forms of individual instruction as are represented by honors courses, reading for honors, reduction in the amount of formal instruction and increased emphasis on independent work.

II. To meet the study needs of the instructional and library staffs. The printed resources necessary for this purpose are properly a charge against the institution. The salaries of the members of the staffs are not adequate for the purchase of all of these materials from personal funds, and they are necessary for a satisfactory discharge of their professional responsibilities.

III. To develop the general reading interests of the student body. The period of college study should be one in which students extend the range and the amount of their general reading. It may well be that this is a function of the library in which the library staff will have to take almost complete, if not complete, responsibility. There is a genuine danger that this purpose will be lost to view under the pressure of

required readings of the modern college.

The committee has undertaken to determine what printed resources are necessary for the realization of these objectives. This phase is but little more than started. A tentative list of the general reference works that a college library should possess has been prepared. Minimum lists are being prepared in the fields of sociology and economics. When these tentative lists have been prepared a number of librarians, in schools where these two subjects appear in the program of studies, will be asked to check the holdings of their institutions against these lists. This will give the committee some basis for conclusions regarding the value of such lists.

Evidently an undertaking of this character covering the departments of knowledge commonly represented in colleges of liberal arts will require a considerable period of time. The committee believes it a worth while venture as it will eventually give a more or less scientific answer to the following problems:

1. Disregarding duplications, what should be the size of the liberal arts college library?
2. What constitutes a proper distribution of the holdings?
3. What is necessary in the way of an annual expenditure to maintain the efficiency of a library that has been brought up to an adequate standard?

The committee suggests that it should be continued at least until it is able to make a more conclusive report.

George A. Works,
for the Committee

Report of Committee on Teaching Load in Colleges

Two years ago this Association appointed a committee of six members to investigate and report on the question of the "Teaching Load" in Colleges and High Schools. With the co-operation of the other members of the committee the writer prepared a questionnaire of which 1500 copies were mailed out, some 900 to college teachers and 600 to high school teachers. The work of tabulating the returns was so great that only a brief and incomplete report was possible at the meeting of this Association a year ago, and that report included college returns only. Later the committee was divided, —three members taking over the high school returns, and three of us the data from colleges. The writer was continued as chairman of the College committee, but the other two members were changed. It is but fair to Professor Freeman of the Education Department of Chicago University, and Professor Holmes, of the Chemistry Department of Oberlin College, the other two members of the Committee submitting this report, for the writer to say that he is certain a more satisfactory report would have been presented today had they had a voice in the preparation and distribution of the questionnaires.

Of the 900 questionnaires mailed out to colleges, some 600 were answered and returned. Some of the replies were so incomplete or vague that they were thrown out. The tabulated results are from 561 returns that on their face appeared to be fairly complete and reliable. About half the states are represented in the returns. Approximately one-fourth the returns are from large universities, another fourth from small colleges, and the other half from the much larger group of institutions that belong to neither of these classes. Questionnaires were sent to *all* the colleges

in two states, and to almost all of them in three other states.

One of the members of the Committee suggests that our division into state and non-state institutions is somewhat artificial, and that a division into colleges and universities might be better. Inasmuch as the writer did not receive the suggestion until last Saturday morning, it was too late to make the study and to tabulate the data on this proposed classification. However, the writer remembers that this point was studied when the questionnaires were being tabulated, with the following results:

University teachers are scheduled for fewer credit hours than are their college brethren. However, the former, on the *average*, give more time to research and professional reading, thus making their total clock hours work per week but little, if any, less than the *average* reported by college teachers.

The writer admits that his motive in tabulating separately the data from state and non-state schools was more or less personal. He lives in a state where he frequently hears people object to larger appropriations for their state institutions of learning because the teachers in them "work only ten or twelve hours a week." They usually add the statement that "if the state institution teachers worked as much as the teachers in denominational colleges or public schools, that their number could be reduced by a half." Such statements are not peculiar to any one state. They may be heard wherever state supported schools exist. The data submitted in the accompanying tables completely wrecks all such arguments. We shall see presently that if either class of teachers is favored, it is those in non-state schools.

The Committee would have extended this study to include more than the eight

departments listed if the amount of work involved had not been greater than the Committee could undertake. The departments studied were chosen because they usually have large enrollments, because most of them are represented in every high school, and because the methods commonly used by their teachers vary greatly in the different subjects.

Referring to the accompanying tables:

Column 2 of Table I gives the number of teachers returning intelligible questionnaires. Column 3 gives the total number of students registered by them, and Column 4 gives the average registration per teacher. Note that the number of students enrolled by the teachers in state schools is, in every department except mathematics, greater than those enrolled by teachers in non-state schools. Column 5 gives the average number of credit hours for each teacher in the several departments. Note that English is lowest, with 11.4 hours per teacher, while Chemistry is highest—with 14.4 credit hours. The difference is but three hours but it is 26% more than the credit hours of the English teacher.

Columns 6 and 7 clearly illustrate the fact that averages are not always dependable grounds for conclusions. In column 6 we have the average number of credit hours reported by the ten teachers in each department who reported the heaviest schedule. Column 7 gives the average of the ten in each department having the lightest schedule. From Column 5 we found a maximum difference of 26% in teaching schedule and an average difference of only 10%. The average of Columns 6 and 7 shows a difference of 176%. The ten highest schedules in Chemistry, on the credit hour basis, are almost five times as heavy as the ten lowest. Averages do not show up these glaring differences, nor excuse them.

Column 8 gives the per cent of teachers in each subject who claim their schedule is too heavy, Column 9 gives the per cent who ask for more time for research, and Column 10 gives the per cent who are satisfied with their credit hour schedule. Note that three-fourths of all the teachers in Mathematics and English are

satisfied with their schedules, while but one-fourth of the Botany and Zoology people are satisfied. No wonder, since the former have the fewest hours to teach (Column 5), the smallest number of students to teach (Column 4) and want the least time for research (Column 9). Other reasons will appear when we are considering Table II.

One of the members of the Committee expressed himself as greatly surprised at the fact that over half the teachers (52%) reported satisfactory schedules. He remarked that this conclusion is not in accord with his experience in talking with his fellow teachers when attending science meetings, where the majority appeared to be dissatisfied. The writer suggests that the apparent discrepancy may come from the fact that teachers who attend such meetings are of the progressive, ambitious type, evidently not entirely content with their lot and conditions as they are. The majority do not attend science meetings, educational meetings, and other such. If they did, this Association would have to meet in Soldier Field. The majority are willing to "let George do it." If George can do anything to better conditions, all well and good. But they are not worrying about the matter.

Passing to Table II, we have in Column 3, the average number of lectures per teacher per week; in Column 4 the recitations per week; in 5 the clock hours spent in the laboratory each week; in 6 the hours spent per week in preparation, including grading of themes and note books, consultation, etc.; in Column 7 the number of hours per week given to professional reading; and in 8 the hours spent per week in research. Column 9 gives the total time (as reported by the teachers themselves) which the teacher can justly claim as his service time, regardless of the number of credit hours appearing after his name on the class schedule or program.

Column 11 gives the number of clock hours the teacher gives his school for each credit hour the schedule shows he is teaching. This column shows differences as great as 70%, clearly establish-

ing the fact that credit hours alone should not be the basis for estimating the service rendered by a teacher. Column 9 gives the data which show what the teacher is really doing. It is true, of course, that college students must have teachers, and each and every one employed as a teacher should do his share of the work. Granting this point, and leaving out of consideration research work and all forms of service except teaching itself, then the chief questions at issue are two in number. First, whether or not the number of credit hours one teaches is a measure of his teaching service. Second, whether or not the very general custom of counting two hours of laboratory instruction the equivalent of one hour of recitation or lecture work is fair to either the laboratory teacher or to his students.

Your Committee used the two to one ratio in determining the number of credit hours in Column 10, Table II. Column 8 of Table III shows that of the 561 teachers responding to our questionnaire but eight took exception to this ratio. Column 5 shows that there were as many teachers interested in better library facilities as in reducing their laboratory teaching time requirements. The column surprises us in showing that science teachers appear to be more interested in libraries than are the teachers of History and English. The other columns of Table III explain themselves and require no comment, unless it is to call attention to the fact that more teachers objected to large classes, too few assistants, limited laboratory space and equipment, the amount of routine work, and to awkward schedules, than to the credit given laboratory hours.

Table (or Plot) IV (by Professor Freeman) shows at a glance the more important facts shown by the data of the first three tables. Such plots are so common as to need no explanation. Let us proceed at once to interpret their significance. Noting that the lower section of each column represents the number of *credit hours* of lectures and recitations, and that the blank (unlined) por-

tion of the column immediately above represents the number of *clock hours* given to laboratory work, then the line I along the top of the blank columns indicates the number of credit hours for each department on the basis of one hour laboratory for one hour class work. On this basis the laboratory men certainly appear to be doing more than their share. But if we draw a line H half way between the upper and lower ends of the laboratory spaces, this line represents the credit hour load on the basis of two hours laboratory work for one hour of lecture or recitation. On this basis the credit hour load appears to be fairly uniform. Obviously, however, one is not justified in ignoring the upper two sections of the columns. The total heights of the columns give the actual working or teaching load, which is much greater in some than in other departments. As previously mentioned in this report, there is a reason for the large number of satisfied teachers of English and Mathematics.

Once again the writer wishes to voice his protest against the credit hour as a unit for estimating service; and against conclusions based on averages. Consider the first point. What is a credit hour? If a personal illustration is permissible, I may say that for many years I taught a class in Mathematical Physics which, after the first year or two, required just fifty minutes of my time per credit hour. One of my colleagues is now offering this course and he corroborates my statement as to the time required to teach it. For almost forty years I have given experimentally illustrated lectures in elementary physics for which I have always given an average of four hours for each credit hour. Two years ago I gave a course in architectural acoustics to which I gave an average of twenty hours of hard work for each credit hour. I am to give another advanced course the coming summer and for each credit hour I expect to give no fewer than twenty hours in direct preparation. It is for an institution to say whether or not such courses are desired. If they are encouraged, certainly the teacher who is

Table I

(1) Department	(2) Number of Teachers Reporting	(3) Number of Students	(4) Students per Teacher	(5) Average Number Credit Hours	(6) Ten Hav- ing Most Credit Hours	(7) Ten Having Fewest Credit Hours	(8) Per Cent Claiming Overload	(9) Asking More Time for Research	(10) Per Cent Satisfied
Physics—Total	104	14,245	137	12.7	19.8	5.5	35	19	45
State	52	8,783	168	12.1	.....	.....	42	19	46
Non-state	52	5,462	105	13.4	.....	.....	27	19	44
Chemistry—Total	105	19,236	183	14.4	26.3	5.7	25	18	63
State	33	8,951	271	13.8	.....	.....	18	9	64
Non-state	72	10,285	143	14.7	.....	.....	28	22	62
Botany—Total	50	7,938	159	14.0	21.7	7.3	50	40	24
State	22	3,717	169	14	.....	.....	68	55	14
Non-state	28	4,221	151	14	.....	.....	36	29	32
Zoology—Total	51	9,940	195	13.2	20.2	7.0	41	35	29
State	27	5,818	215	11.7	.....	.....	26	22	44
Non-state	24	4,122	171	14.8	.....	.....	58	50	12
Mathematics—Total	80	5,661	71	13.9	19.9	8.7	19	7	79
State	40	2,940	67	13.7	.....	.....	16	9.1	80
Non-state	36	2,721	75	14.0	.....	.....	22	5.5	78
Psychology—Total	51	8,621	169	12.4	16.0	8.0	26	18	41
State	18	3,663	204	11.5	.....	.....	28	22	39
Non-state	33	4,958	105	12.8	.....	.....	24	15	42
History—Total	57	8,871	156	12.2	17.0	7.2	42	42	46
State	26	4,954	191	11.4	.....	.....	50	31	42
Non-State	31	3,917	126	12.9	.....	.....	35	52	51
English—Total	63	7,636	121	11.4	15.9	7.1	22	11	70
State	38	4,918	129	10.4	.....	.....	24	10	68
Non-state	25	2,718	109	13.0	.....	.....	20	12	72
Summary or average	561	82,148	146	13.1	19.6	7.1	31	22	52

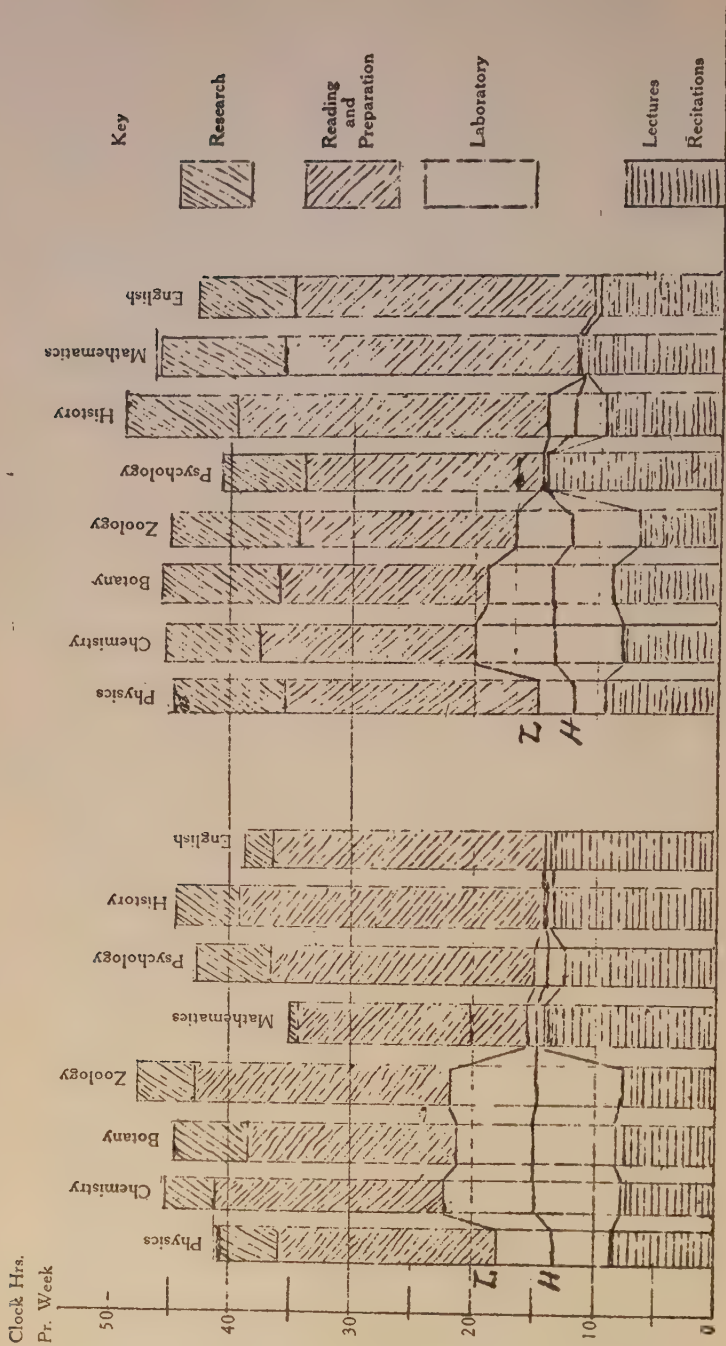
Table II

(1) Department	(2) Number Reporting	(3) Hours Lecture Per Week	(4) Hours Recitation Per Week	(5) Clock Hours Laboratory Per Week	(6) Hours Per Week in Preparation	(7) Clock Hours Per Week in Professional Reading	(8) Clock Hours Per Week in Research	(9) Total Clock Hours Per Week	(10) Credit Hours Per Week	(11) Clock Hours Per Credit Hour
Physics—State	52	3.8	5.4	5.8	14.0	6.4	10.6	46.0	12.1	3.8
Non-state	52	4.6	4.0	9.6	13.8	4.3	4.3	40.6	13.4	3.0
Chemistry—State	33	6.1	1.6	12.3	10.3	7.0	9.5	46.8	13.8	3.4
Non-state	72	5.8	2.3	13.3	13.8	5.8	5.4	46.4	14.7	3.2
Botany—State	22	6.1	2.6	10.5	10.3	5.8	12.0	47.0	14.0	3.4
Non-state	28	5.6	1.7	13.5	11.7	6.0	7.3	45.8	14.0	3.3
Zoology—State	27	5.2	1.4	10.2	11.1	5.6	13.2	46.7	11.7	4.0
Non-state	24	5.0	3.0	13.6	14.9	6.5	5.8	48.8	14.8	3.3
Mathematics—State	44	2.4	11.3	0.0	12.9	6.6	7.7	40.9	13.7	3.0
Non-state	36	3.1	10.1	1.6	13.6	5.9	0.6	34.9	14.0	2.5
Psychology—State	18	5.3	4.0	4.5	14.5	11.0	10.0	49.3	11.5	4.2
Non-state	33	6.6	5.3	1.8	17.6	5.6	6.8	43.7	12.8	3.4
History—State	26	6.4	4.9	0.3	20.5	5.0	9.7	46.8	11.4	4.1
Non-state	31	7.7	5.2	0.0	19.8	6.6	6.1	45.4	12.9	3.5
English—State	38	4.4	6.0	0.0	21.0	5.0	7.2	43.6	10.4	4.2
Non-state	25	7.0	6.0	0.0	19.5	4.1	2.3	38.9	13.0	3.0

Table III

(1) Department	(2) Number Report- ing Classes Too Large	(3) Number Needing Additional Assistants	(4) Number Needing Laboratory Space or Equipment	(5) Number Wanting Larger Library	(6) Too Much Routine Work Grading Papers, etc.	(7) Number Reporting Awk- ward Schedule	(8) Number Wishing More Credit for Laboratory Work
Physics—State	2	5	2	0	2	1	2
Non-state	0	7	2	2	0	0	2
Chemistry—State	1	2	2	0	3	0	1
Non-state	1	8	1	1	0	0	0
Botany—State	1	3	0	0	0	0	0
Non-state	0	4	2	2	0	1	0
Zoology—State	1	4	1	1	0	2	0
Non-state	2	2	0	0	1	3	1
Mathematics—State	0	0	0	0	0	0	0
Non-state	0	0	0	0	0	0	0
Psychology—State	2	2	0	0	1	1	0
Non-state	2	0	1	0	0	2	0
History—State	0	2	0	0	0	0	0
Non-state	2	0	0	0	0	2	0
English—State	0	1	0	0	0	1	0
Non-state	0	1	0	0	1	0	0
Summary—State	7	19	5	1	6	5	3
Non-state	7	22	6	5	2	8	3
Total	14	41	11	6	8	13	6

Table IV
NON-STATE SCHOOLS
STATE SCHOOLS



giving them should not be forced to match credit hours with the teacher of undergraduate mathematics or language.

As to the second point, the questionable validity of conclusions based on averages, the writer wishes to cite an instance. The lowest total clock hours per week reported in this study was 15. The highest was 70. The average is 42.5, which is very near the average of all. Nevertheless, we have one teacher doing almost five times as much work as the other, a situation that is absolutely excusable. Something more than a printed program of classes is necessary in order to gauge justly a teacher's work or his worth.

Many other inferences or conclusions may be drawn from the data submitted

in this report. Lack of space forbids their discussion at this time.

In conclusion your Committee begs to report that it is not prepared to recommend any change at this time in the fairly generally accepted practice of counting two hours of laboratory practice the equivalent of one hour of lecture or recitation. The Committee does recommend, and strongly urges, that credit hours in different departments, in different subjects within the same department, and for different teachers, be evaluated or weighted, before fixing definitely the number of credit hours a teacher *must* offer.

Respectfully submitted,

Arthur L. Foley, Chairman.

An Interpretation of the Work of the Committee on the Re-organization of Secondary School Curricula*

By J. E. STOUT, NORTHWESTERN UNIVERSITY

In response to a request made by the Committee on the Reorganization of Secondary School Curricula I shall attempt to give a summary of the work of the Commission covering a period of several years. In the view of the Committee such a statement is desirable if for no other reason than the fact that the primary purpose of the Committee has in some cases been misunderstood. For example, from the very beginning of its work, there has been a considerable insistence upon the recommendation of quantitative units in this subject and that one and the other, while the primary purpose of the Committee was not to formulate such units at all—having a very different purpose in mind.

Briefly stated, the purpose of the Committee originally was to work out as successfully as might be a technic or method of applying educational objectives in such a way as to secure improvement in the quality of material used in instruction and in activities carried on for educational purposes. This qualitative emphasis has been maintained throughout the history of the work that has been carried on. More recently some attempts have been made to formulate quantitative units, and this phase of the work will be referred to later in the discussion.

It should be said at the outset that the work of the Committee has not resulted in a new concept of the objectives of secondary education. The objectives as stated by the Committee, both ultimate and immediate, were for the most part generally accepted as desirable ob-

jectives of secondary education. Health, leisure time, vocational preparation, and social relationships are regarded as the fundamental concern of education. There is also general agreement that more immediately knowledge, attitudes, ideals, interests, habits, skill, are likewise the concern of education as means to desired ends. It is a matter of common knowledge, however, that theories about education, either as to ends or procedures, are too frequently far separated from practice. And the chief concern of this Committee has been to render such service as it was capable of rendering in securing in larger measure the fruitful application of these objectives, generally accepted as valid, in the selection of subject matter and activities in the secondary school. We have in general approved of modern objectives, but a far too large proportion of the material used in instruction seems to bear little or no relation to their realization in school practice. For example, what does quadratic equations and a knowledge of the binominal theorem have to do with the realization of any one or all of the objectives that are agreed upon? Is mathematics of equal value, regardless of what material is used? Is all historical material of equal value regardless of the period covered and the kind of material mastered? Assuming that a knowledge of English has value in relation to the right use of leisure time, does it make any difference what kind of material is used? If, for example, we expect high school students to cultivate the habit of reading as a leisure occupation, does it make any difference what kind of material we teach them to read? If a pupil studies the history of

*A report made before the Association meeting in Chicago, March 14, 1929.

Assyria and Babylon and Egypt, how do the results compare in educational value with a study of the history and government of the United States?

The answer, theoretically at least, to all of these questions is, of course, affirmative, and there would be general agreement that it does make a difference. The pertinent question, however, is not what is the theory about it but rather what are the practices. In practice, have we discriminated carefully concerning the qualitative values of material, having in mind certain specific ends which we are seeking? A comparison of types of material used before the recent attempts to restate educational objectives with material in current use, shows rather clearly, particularly in certain subjects, that little or no change has taken place. That is to say, much of our educational practice had not been affected by new or more explicit objectives agreed upon. If revision is needed it is not primarily a question of quantity of material but rather one of quality.

In summary of the discussion up to this point it may be said that the original purpose of the Committee was two-fold: First, to emphasize and make explicit the primary importance of the qualitative aspect of curriculum reorganization; and second, to work out technics for the application of objectives which would in fact result in the improvement of the quality of subject matter and activities constituting secondary school curricula.

In reviewing the work of the Committee much of the detail will have to be omitted. Reference is here made to Part III of the Proceedings of the Association for 1924 and the March, 1927 and March, 1928 issues of the North Central Quarterly, where will be found the major portion of the results which can be set forth in concrete form. The influence of the Committee through published material, correspondence and personal contacts is quite another matter. In any case it is not within my province to review the material put out by the Committee, but rather to set forth its point of view and interpret its work in

the light of what it set out to do. This can probably best be done by a brief summary of the procedure employed in carrying on the work.

I.

The first task of the Committee was to formulate a general statement of objectives for use in the reorganization of secondary education. These were conceived as ultimate objectives or goals in terms of dispositions and abilities to maintain health and physical fitness; to use leisure time in right ways; to engage efficiently in vocational activities, and to sustain successfully certain definite social relationships. These objectives obviously depend for their realization upon the acquiring of fruitful knowledge, desirable attitudes, interests, ideals, motives, efficient mental technics and useful habits and skills, and these, therefore, become the immediate objectives of the school.

Having determined the form and content of the general statement of objectives, the next step was to make them effective as criteria for use in securing improvement in the quality of subject matter and activities. Obviously this could be done only by making a somewhat detailed analysis of each objective in order to secure sufficiently specific criteria for use in measuring relative values and for the selection of material and activities having the highest potential values available.

One example will be given of this process of analysis. Fruitful knowledge is analyzed into knowledge useful in acquiring other knowledge, useful in meeting the requirements of concrete social situations, useful in discovering one's own aptitudes and abilities. For complete statement concerning all objectives see March, 1927, issue of the North Central Quarterly. Here will be found in considerable detail analyses of both immediate and ultimate objectives. No claims made for completeness of analyses and the criticism that the analytical process might be carried much further is entirely valid. Here as elsewhere in the work of the Committee, the value of

its work should be judged by the quality of its deliverances rather than by the quantity of its product. In the view of the Committee, its primary task was not to analyze each objective stated in more general terms into *all* the possible criteria for selecting and evaluating material, but rather to make a limited analysis of each one and to apply the resulting criteria in evaluation and selection. Taking this view of the matter, its work should not be judged by the number of criteria set forth, but rather by their validity and fruitfulness if properly applied.

II.

The second and succeeding steps in procedure have already been implied; namely, the use of these criteria in the selection of subject matter and activities. An example of this procedure may be found in Part III of the 1924 Annual Report of the Association and in subsequent Reports and in the issues of the North Central Quarterly referred to above. The first subject used for analysis, evaluation and suggested types of material was English. This was chosen both because of the large place occupied by this subject in the secondary school curriculum and the fact that persons were available exceptionally well qualified for the task. Subsequently the entire range of subjects was similarly treated and the process extended to extra-curricular activities. This material has been made available through the Quarterly and reprints to administrators and teachers throughout the North Central territory.

At this point in the progress of the work of the Committee, misunderstandings concerning both its purpose and the suggested method of procedure in selecting material and activities became evident. Teachers and administrators in considerable number judged the material in terms of quantity—whether too much or too little for a given school year or grade. On the contrary, the material published was intended to be illustrative of the quality, kind, types resulting from the use of the aims or objectives as cri-

teria in selection. Further it was designed to serve as examples of a technique to be used in selecting desired quantities from the body of material suggested, or additional material of similar kinds or types. For example, the suggested material for use in ninth grade English was intended to serve as samples or examples of the quality, kind or types of material suitable for realizing certain specified objectives and adapted to the needs and abilities of students in this particular grade. Similarly material designed for grades above and below the ninth was to be judged on the basis of its quality, kind or type, and its suitability for the grade designated. The same can be said of any other subject or field.

What was intended and what was actually done in relation to all the material published up to and including the March, 1928 Quarterly was to set forth the quality or kinds of materials suggested for use in realizing specified objectives. It was designed to answer the question *what kind*, and *not* the question *how much*. It is freely granted that the latter question is inevitable and must have some kind of answer. But at this point in the progress of the work of the Committee, no answer was attempted. It was felt that the quantity of a unit becomes significant only by virtue of the values potential at least in the subject matter which constitutes it. Hence let first things come first in the important task of curriculum revision.

This point of view has been stressed throughout because in the belief of the Committee need of revision does not arise chiefly out of the fact that we have failed to teach enough or have attempted too much within a given time. It is found rather in the lack of values in the material and activities used, measured by the criteria generally agreed upon for determining the functions of the secondary school.

The third step in procedure naturally was to secure the use of the material published in order that it might be used experimentally and thus be tested in practice. To accomplish this, reprints at

a nominal cost were made available, resulting in the distribution of several thousand copies over practically the entire range of North Central territory. This means that the material has found its way into a large number of schools and that it has been put to its intended use in some of them. It is not possible to state the number of schools in which it has been used or the extent to which it has become integral parts of the material used in instruction. Some evidence is available covering both of these points and enough to warrant the statement that substantial changes have resulted in the types of material constituting the different subjects and fields.

It is readily admitted, except in a very limited way, that facilities have not been available for testing the material under proper conditions of control. Or more properly stated, conditions under which it has been used have not been controlled by the Committee, and reports of successes and failures have been entirely voluntary on the part of administrators and teachers. Criticisms, favorable and otherwise, have been largely based on opinion with but little opportunity for testing its validity. In spite of these limitations, however, stimulus has been given to purposeful, systematic curriculum revision and an appreciable degree of guidance provided in procedure.

Applying the North Central Association Standards to the Reorganization of the Secondary School Courses in Latin*

BY MISS OLIVIA POUND, LINCOLN, NEBRASKA

The question assigned for this discussion necessitates a brief review of the standards set up by the North Central Association for use in curriculum revision before they can be applied in testing the subject matter of secondary school courses in Latin. The ultimate objectives have been summarized as follows:

1. To maintain health and physical fitness.
2. To use leisure time in right ways.
3. To sustain successfully certain social relationships, civic, domestic, community and the like.
4. To engage in exploratory-vocational and vocational activities.

It is apparent that the study of Latin can be of little or no assistance in helping the individual to maintain health and physical fitness. Indirectly an understanding of scientific terms derived from the Latin will help in the use of health terms, but the contribution is too slight for consideration. Similarly the study of Latin can be of only slight assistance in helping one to engage in vocational activities. To be sure the student of law or medicine and the like can more easily master technical terms if he understands Latin, but this fact would hardly justify including the subject in the curriculum of secondary schools. The study of Latin can perhaps help the individual in some degree to spend his leisure time in right ways, because a knowledge of Latin will enable him to read more understandingly. The

contribution, however, which the subject can make to the attainment of this aim is of indirect value.

It is evident, then, that secondary school courses in Latin can contribute only to developing the ability to sustain successfully certain civic relations. To quote from the report of the sub-committee on Latin: "Latin can be made to have direct bearing on an important division of one of the main educational aims as set forth by the North Central Association, namely acquiring the means of *social communication*. Society depends on language as its main means of intercourse. It is the 'tool of understanding.' Any study that gives a greater command of the mother tongue should have an important place in the high school curriculum." In accordance then with the standards of the North Central Association the aims in the teaching of Latin briefly stated are as follows:

1. The development of the ability to read Latin of increasing difficulty.
2. a. The development of the ability to understand and use accurately English words of Latin origin.
- b. The development of an appreciation of the classical element in English literature.
3. The development of an historical and cultural background through knowledge of Roman history, art, religion, customs and institutions.

It will probably be unquestioned that objectives 2 and 3 cannot be attained unless the first objective has been met. Fortunately the newer Latin texts have an abundance of reading material of

*An address delivered before the Commission on Unit Courses and Curricula in Chicago, March 14, 1929.

graded difficulty, so that it is now possible for pupils to develop the ability to read Latin with much greater facility than heretofore. The attempt should be made in attacking the Latin sentence to get the thought from the Latin order and directly from the Latin itself instead of inferring it backward and indirectly through translation. This will require from the beginning continuous practice in the accurate pronunciation of Latin words, and constant reading of the Latin before translation is attempted. The pupils can be trained to read the Latin with such careful regard for grouping and phrasing that much of the thought will be clear without translation. Exact pronunciation is necessary also if the pupil is later to correlate his Latin with English spelling. It is possible to develop this work in pronunciation from the standpoint of English as may be seen from the admirable presentation of the subject in Francois' *First Latin*, Allyn and Bacon, pp. 13 to 18.

Suppose Galba, a Roman boy, should take up the study of English and should come upon the words

fate	fat	far	fall
thou	though	thought	through
head	hear	heard	heart

Four different sounds of a, of ou, and of ea! And suppose he then runs across

cat	cent	go	gem
-----	------	----	-----

with two different sounds for c and for g.

What a contrast with his native Latin where a vowel has only two similar sounds—short and long, and the pronunciation of a consonant seldom varies. When he finds that English letters are often silent, or have varying sounds, he is likely to get discouraged.

In presenting accent, the Latin is again contrasted with English.

Accent—Suppose the Roman boy Galba keeps on with his English and runs across the following words:

accent	object	present
--------	--------	---------

all of which occur early in grammar.

At *present* he *objects* to the lesson, whose *object* is to *present* accent so that he can *accent* English words correctly. He takes his problem to his teacher, who tells him that you cannot tell the accent of these words until they are used in a sentence.

Once more Galba is struck with the greater simplicity of his native Latin, where accent, like pronunciation, is uniform.

Under the second guiding principle, i. e., the ability to understand and use accurately English words of Latin origin, there should be fostered the ability to recognize English words which are identical with the Latin. Francois, also, gives an interesting presentation of this work:

Identical words—1. When Galba takes up the study of English words, he is surprised and delighted to find how like the Latin many of them are. Not only are more than half our English words derived from Latin, but many words are identical in both languages.

animal	consul	horror	peninsula
arena	dictator	inventor	status
censor	furor	labor	terror
census	genus	minor	toga
clamor	honor	omen	tutor
ulterior	victor	villa	

Pupils also should be able to correlate Latin with English spelling, as was mentioned before. One needs only to look over the pupils' copies of their daily programs to realize how fertile a field this is. Among the commonest mistakes in spelling are "agriculture," or "agiculture," "labratory," or "labitory." Other common errors in the correction of which a knowledge of Latin can help are the spellings: "temperary," "seperate," and so on. Too often the attack on these English words comes from the wrong angle, from Latin to English, rather than from English to Latin. For instance when a pupil has misspelled *agriculture*, *laboratory*, or *temporary*, ask him to find the Latin

word from which the English comes, and then tell why his spelling is incorrect. In the *Efficiency Book for High Schools* by H. H. Benz and F. B. Knight, Rand McNally Co., 1928, a book of remedial tests for high school pupils, there occur at regular intervals lists of words which pupils most commonly misspell. At least ninety per cent of these words are of Latin origin. Pupils who have been taught to use their Latin to help them in spelling are unlikely to make the mistakes listed in this book. Here are some of them

quantities distrubution vertue
adiquate inocent permant
preperation dormatory unecessary

Under the second guiding principle should come also some definite ability to interpret English words by recognizing their Latin origin. Pupils can develop unusual sensitiveness to the meaning of words, and find genuine pleasure in detecting the Latin element in them. In a science class recently a girl came on the expression "igneous rock." She had been taught never to consult the dictionary until she had tried through her knowledge of Latin to reason out the meaning of unknown words. She knew that *ignis* meant "fire," and that the suffix—*ous* meant "full of." "Igneous rocks" then must have been subjected to intense heat. To illustrate further, W. A. Ellis, at the head of the proof readers on the *Chicago Daily News* in a recent article gives some excellent examples of how a usable knowledge of Latin will "save wear and tear on the dictionary." The following is a quotation from this article.

One of our readers laid a proof before me one day and, indicating with his finger, asked: "What's this word? Did you ever see it?" He was pointing to "insenescible women." "No, I have never seen it," I replied, "but it means 'incapable of growing old.'" "If you never saw it before, how do you know what it means?" was the incredulous comeback. I explained that the word was doing its best to shout its meaning in every syllable.

On another occasion one of our women readers brought me a proof, saying: "I think this writer must mean to say 'senile.' I've never seen such a word as 'anile.'" (Nor had I!) "No," I answered with a wise look, he is saying just what he means. He doesn't mean 'old-mannish,' but 'old-womanish.'"

The method of attack in teaching derivatives is too often from Latin to English instead of from English to Latin, as in most textbooks the English derivative is placed opposite the Latin word, in the vocabularies. Instead of this the pupils should be asked to interpret the English word through his knowledge of Latin. A ninth grade pupil can easily recognize that a "fabulous monster" must be one in a story, not real; a matter of "vital importance" may be one of "life or death"; "an impediment in one's speech" is a hindrance to articulation, and so on. An excellent example of this ability to make Latin shed light on the shades of meaning in English words is given in an article on *Latin in the Secondary Schools* in the March issue of the *Classical Journal*. The writer says:

"A couple of months ago I visited the same school again and spent a few minutes in another beginning Latin class taught by the same teacher. As I came into the room a boy was on his feet giving the principal parts of a verb in the day's lesson—*deicio*, *deicere*, *deieci*, *deiectus*. I asked him what the prefix meant and received the reply: 'down from'. Then I inquired about the stem and was told that it came from *iacio* and meant 'to throw'. Finally I asked him how a fellow felt when his girl *threw* him down, and quick as a flash I got the answer: 'Dejected!'"

Along with this ability to interpret English words by recognizing their Latin origin should come an understanding of common abbreviations and of Latin expressions and allusions which are met by the average reader. For example in Kipling's *Puck of Pook's Hill*, a book rather commonly read by school children, one meets this: "Dan said the plural of

'dominus' was 'dominoes.'" Again: "He said no more till we had saved the family gods (they were respectable householders), and then he grunted across the laurels: 'Listen, young sometimes-one thing-sometimes-another, in the future call yourself Centurion of the Seventh Cohort of the Thirtieth, The Ulpia Victrix.'" "

Because the classical element in English literature is so important, the chance should not be missed of giving Latin pupils some systematic knowledge of the best known Graeco-Roman myths, so that allusions to them can be readily recognized. Here are a few examples taken at random, largely from the *Saturday Evening Post*; "an apple of discord," "Gorgon locks," "even the great Achilles had a weak spot," "to win his laurels," and so on. Miss Sabin's *Classical Myths That Live Today*, published by the Silver Burdette Company of Chicago, is invaluable as a reference book for this work.

Lastly the pupils will need to develop an historical and cultural background through knowledge of Roman history, art, religion, customs and institutions. Many of the newer texts have excellent material on these topics. The work should include some geography of the country and its relation to the ancient world. The well known expression "all roads lead to Rome" could be used as a starting point and the pupils be asked to find out how and why this statement was true. The pupils should have also an airplane view of the history of Rome, such as is given in Wells' outline of history. Some idea of the culture of the Romans should be given, their ambitions, aspirations, ideals and the contributions they made to the civilization of the world. The Roman ideals can well be illustrated by the lives of their famous men. Courage is typified by Horatius Cocle, patriotism by Cincinnatus and Appius Claudius, a sense of justice by Camillus, a sense of duty by Junius Brutus, and so on. For this work Haaren and Poland's *Famous Men of Rome*, published by the American Book Company of New York is most valuable. If the Romans are to

seem as if they ever were made of flesh and blood the pupils need to know something of their life, their customs, their religion and so on. Such knowledge enhances interest in the Latin language and in the Roman people and it also helps to develop a feeling of tolerance for those of other nations.

Lastly there might be read some translations of the most interesting bits of Latin literature, which the average pupil otherwise might never meet. For this work I would suggest Livy's description of Hannibal's crossing the Alps, Pliny's account of the destruction of Pompeii, Ovid's *Pyramus and Thisbe*. An excellent reference book for this is *Readings from the Literature of Ancient Rome* by Dora Pym, published by Harcourt, Brace Company. Some work of this sort should be offered also in order to give the pupils a taste of the desirability and possibilities of the advanced courses in Latin.

It will be seen from the foregoing discussion that in applying the standards of the North Central Association to the reorganization of the Latin courses in the secondary schools no radical changes in the material of the courses are demanded. What is involved is rather a difference in point of view on the part of teachers and pupils, a shift of emphasis, and some consequent differences of approach. —In conclusion I should like to say that though I may have outlined rather a wide field of work, it is no more than the newer textbooks include. If these aims which I have enumerated are stressed, the pupils will have a pretty clear understanding of the Romans by the time they have completed four semesters of Latin, and, if only one semester's work is completed, they will be able to use what little they have learned. To sum up then, if the standards of the North Central Association are applied to reorganizing the Latin courses of the secondary school curriculum, pupils will read much more Latin than they do now and with greater facility. They will be taught *to attack their Latin always from the English viewpoint*. To quote again from the report of the sub-committee on Latin:

"The study of Latin *will not automatically* develop increased ability to understand and use English more accurately. The specific aim in teaching high school Latin must be to choose such materials and use such methods of instruction as *concern directly the development of greater ability to use English as a means of social communication,*" that is as a means of understanding the ideas of others and making one's own ideas more intelligible.

Applying North Central Standards to the Re-organization of a Curriculum in High School English

By LURA BLACKBURN, OAK PARK, ILLINOIS

I have been asked by the Committee on Standards for Use in the Re-organization of Secondary School Curricula to report the results of applying the objectives worked out by that committee to the re-organization of a curriculum in high school English. I am glad to do this because I believe in the usefulness of such a piece of work.

It will hardly be denied that in a world that is changing with such startling rapidity as ours is today there is need for a change in the education which is to prepare young people to take their places in that changed world. The pupils in our secondary schools today cannot remember when they first saw an automobile, a movie, a radio, or an airplane. Their memories may preserve for them some dim disconnected pictures of the period of the Great War, but of the world before 1914 they can know nothing. A year or two ago Thomas A. Edison proposed a list of questions which purported to prove that the youth of today, in spite of all their schooling, are appallingly ignorant. The list of questions pertained to certain facts that were considered important and useful a generation or two ago, and the young people were unable to answer many of them. They could have proposed, however, a list of questions, concerned with useful information too, that their elders could not have passed with a high rating. Many things which seem useful and desirable in their lives young people are compelled to learn outside of a school curriculum. For eight years the Committee on Standards for Use in the Re-organization of Secondary School Curricula has been at work upon this obviously important educational problem of making over the tra-

ditional courses of education to meet the need of today, and because I believe in the purposes of the committee I am glad to be able to help a little in their task.

It is recognized by the committee that many changes have been made in secondary school curricula in recent years and that much new material has been introduced. Here and there all over the country administrators are struggling to adapt the courses in their own schools to the needs of the time and of their particular communities. In order that the wide-spread effort toward modifying the curricula may not be purposeless and wasteful the Committee has worked out two sets of objectives—four ultimate objectives of education in general and four immediate objectives which are to guide in the selection of means, in the choice of method, and in determining school organization and class room practice. The objectives as stated by the Committee are to serve as a test of fitness to be applied to both new and old material in re-making a course of study, and I am asked to apply the test to a course of study in English.

In order to be able to do this intelligently I have had to make a very painstaking study of the *Report of the Committee on Standards for Use in the Re-Organization of Secondary School Curricula* as published in the *North Central Association Quarterly* of March 1927. I have had to think through the objectives and the very detailed analysis of the objectives which the report includes until the point of view of the committee became my point of view. I have tried to understand the technique of procedure which the report claims is to be

followed in applying the objectives. It seems only fair to the committee and mere intellectual honesty on my part that I should become so familiar with the report that I should be able at every step to apply the objectives as worked out and stated by them and that I should not substitute some vague objective of my own invention. Unless the objectives are tried out whole-heartedly by those who actually make courses of study and tried out under the terms set by the committee, their years of work will have failed to a considerable degree in its purpose. This 1927 report, therefore, I shall treat as a bible for the matter in hand—containing all the law and the prophets.

I am going to undertake a very limited piece of work—merely to take the course of study in our own high school* for the present year, put each unit upon the defensive and make it justify itself if it can on the basis of the ultimate and immediate objectives set up by the committee. That seems to be the proper way to go about re-organizing any given curriculum. Our own course of study in English varies a little from year to year. I wish I could tell you how we of the English department have sat down with the objectives before us, and as each new book or unit was proposed have made it pass the test of conformity:

1. To maintain health and physical fitness.
2. To use leisure time in right ways.
3. To sustain successfully certain definite social relationships, civic, domestic, community, and the like.
4. To engage in exploratory-vocational or vocational activities

I wish I could tell you that; only if I did, it would not be true. As a matter of fact we have not applied the objectives as standards in determining new units or discarding old ones, but I nevertheless believe that they do furnish, as the committee intended, very workable criteria for selection of curriculum material.

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I hope I have not already shown at the outset an ignorance of my bible by quoting from the Ten Commandments when I am properly referring to the Beatitudes. I am aware that it is the immediate rather than the ultimate objectives quoted above that are to serve "directly as guides in the selection of subject matter and in determining emphasis or neglect in teaching." Of the four larger objectives it is chiefly the second and third, the use of leisure time and the sustaining of social relationships, which express the aims of the study of English in high school. Perhaps an ideally constructed English curriculum should meet all of the four ultimate goals. The general report lays down the principle that objectives are derived from studying certain common needs of all high school students and the individual needs of various students; and that the subject of English is one which has been depended upon to furnish the common elements that meet the common needs. That is why it is a required subject. The committee further raises the question whether "we need to modify the subject matter of these traditionally required subjects if they are to continue to furnish the common elements." Testing a complete curriculum on that basis is of vital importance since it brings the subject of English into court to defend its right to continue as a required subject; but such a test involves a much longer discussion than I have time for at present. This test applied to the course of study which I am using as a basis for this discussion would reveal an apparent weakness in the lack of material definitely chosen for the purpose expressed in the fourth ultimate objective—to engage in exploratory-vocational or vocational activities. The emphasis or neglect of vocational material in a given curriculum is dependent largely upon the nature of a particular community; and it so happens that the community for which this English curriculum is planned has rather less than the customary need for vocational studies.

If I may call attention to the outline

of materials used in our English course of study, I will proceed to apply to some of the units the touchstone of the ultimate objectives stated above and of the following specific objectives:

- A. Acquiring fruitful knowledge.
- B. Development of attitudes, interests, motives, ideals and appreciation.
- C. Development of definite mental techniques in memory, imagination, judgment, and reasoning.
- D. Acquiring right habits and useful skills.

You will observe that we have rather a long list of novels, five of which are used for class room study. For four of these—*Oliver Twist*, *Ivanhoe*, *David Copperfield*, and *The Rise of Silas Lapham* I should claim that they meet the two larger objectives: the use of leisure time and the sustaining of social relationships; and the two immediate tests,—acquiring fruitful knowledge which functions directly in developing dispositions and which is useful in the control of every day situations of life, and the development of attitudes, motives, ideals, and appreciation. Of the group it seems to me that *David Copperfield* is richest in ultimate objective calories. From David the student learns the sort of co-operation that makes an ideal school like Dr. Strong's; the right attitude of a good citizen toward child labor; how useful the habit of reading good books may prove to a boy all through his life; what a fool a fellow makes of himself when he gets drunk; Mr. Micawber's economic recipe for happiness; how not to choose a profession; what kind of a girl not to fall in love with; the supreme importance of backbone in one's character; the unforeseen and unforeseeable seriousness of married life; several different kinds of parents one should avoid being. All the wisdom of life is there.

Considerably weaker in calories is *Ivanhoe* but wholly justified in the leisure time test and in developing interests and appreciations.

The book that cannot pass the test from my point of view is *A House of Seven Gables*. I admire the book very

sincerely and rate it very high as a work of art, but it deals with the problem of sin working its evil effects down through the generations, and it has to do with middle-aged people who live in a house of gloom. Its morbid atmosphere removes the book from the lives of healthy boys and girls and keeps it from hitting any one of the objectives squarely.

The book that will need defending in the minds of some is *Oliver Twist*, one I think that is remarkably effective in meeting the sustaining-social-relationships goal—especially civic relationships. It is a good lively story to begin with and young people are not depressed by the sordid underworld of Fagin and Bill Sykes and Nancy. Dickens forces the question of civic responsibility upon the reader. Who is to blame for the evil condition of the work house? At first it seems to be the beadle—but no, not he alone. Is it the trustees in their white waistcoats who sit about the table at monthly meetings of the board? Yes—but not altogether. Gradually we are led to see that we as citizens are all to blame that a boy like Oliver can be thrown into the life of crime—that all of us as citizens somehow are to blame that in Chicago in 1929 seven men can be massacred in a garage in broad day light. The transition is unavoidable.

Dickens leaves no loop-hole of escape for the well-meaning stay-at-home-and-sit-by-the-fire citizen. He makes Bill Sykes complain that his business of house burglary is going to the dogs because it is getting harder and harder to find small boys to help out on the big jobs; and if only the Juvenile Protective Society had just a little more money, his profession wouldn't have a leg to stand on. The least a well-meaning citizen can do is to write out a check and send it to that society. In the analysis of social objectives in the general report (page 443) we find—under the specific objective "(C) Developing mental techniques in reasoning, judgment, etc." the passage "Ability to pass judgments and make decisions with reference to what institutions and enterprises are worthy of one's allegiance."

I am tempted to linger too long over the novels. They are the text books which we bring to the interpretation of life itself. On page 434, to refer again to our bible, the general report, we find a passage which reads: "The disposition and ability to sustain successful social relationships is a very important objective of secondary education, and it is also a very complex one." It might truly be called the most important objective; indeed it is the test of sanity itself. The wisely chosen novel serves this objective.

The drama, you will observe, appears each year in the course of study except the first. Applying the touchstones of the objectives, the reactions are much the same for the plays as for the novels. *Hamlet* and *Macbeth* touch the deepest springs of human conduct in its relation to one's fellowmen, while Galsworthy's *Strife*, which is a modern and realistic presentation of the struggle between capital and labor answers the suggestion of the committee (page 437) that "not only vocational but all high school curricula need considerable re-organization to meet the demands of a democratic industrial society." Such a play as *As You Like It*, which merely appeals to the sense of humor and the sense of the beautiful, does its part toward fitting a youth to use leisure time in the right way and to sustain the less serious social relationships.

Each year of our course has its spell of poetry. Each poem should be made to pass the test of the objectives not only to determine its being kept or discarded but to determine its method of presentation. I can only justify poetry in the bulk on its power toward developing motives, ideals, and appreciations. Poetry is for the use of leisure time on a high plane and for the furthering of high individual and social ideals.

Under the column non-fiction you will find *How to Study* in the freshman year and *The Mind at Work* in the junior year, both aiming at the third specific objective: "Development of definite mental techniques in memory, imagination, judgment and reasoning." There

are the *Classic Myths* for "acquiring fruitful knowledge preparatory to acquiring other knowledge," and also "knowledge which functions directly in developing dispositions." *Every Day Manners* gives a positive reaction to the test of the objective: for sustaining social relationships, for acquiring right habits and useful skills, and for knowledge which is useful in the control of situations of every day life. As for Franklin's *Autobiography* a big book could be written showing how it meets every one of the ultimate and specific objectives down to their finest analysis. Whether the *Old Testament Narratives* will stand the test depends wholly upon the way in which they are taught. It is the expressed intention of the committee that the specific objectives are to serve as guides in determining methods and class room practice. (page 434)

The units which I have grouped under historical backgrounds tend toward an understanding of the world of the present through understanding of the world of the past. Knowing the views of Dean Swift on war and standing armies gives one a bigger view of disarmament and world peace today. The end is worded in the general report (page 442) under the analysis of the first immediate objective: Acquiring fruitful knowledge.

(1) Preparatory to acquiring other fruitful knowledge.

a. Acquaintance with events, persons, and customs which have determined the progress of mankind.

b. Familiarity with the sources of social facts and phenomena.

The aim of the historical background material is expressed also in the analysis of the third immediate objective (page 443) "Ability in selective recall of one's historical knowledge of those elements that are pertinent to present social and civic problems."

The unit of word study or history of the English language, coming as it does in the sophomore year, will hardly stand up to the test of the objectives, considering the time that it requires; but this application of objectives is qualitative not quantitative.

The technical aids in the way of text books in rhetoric and the writing of many themes aim at the fourth specific objective—acquiring right habits and useful skills. The grammar unit of ten weeks theoretically is supposed to meet the objective just stated. I don't believe that it does in practice. Possibly also the acquiring of fruitful knowledge—preparatory to acquiring other knowledge. I am very dubious about the fruitfulness of the knowledge of technical grammar. It seems to me more like a barren fig tree.

But perhaps I am deceiving myself and substituting a personal prejudice for the touchstone of the objectives. When each unit of any given curriculum

has been measured by the criteria of the objectives, there is still the task of considering other possible units that may more truly and more economically meet the goals of education; so that the process of re-organizing a curriculum is only started. I have tried to be objective and judicial in applying the standards of the committee, but there is always the danger of rationalizing, of forming the conclusion and explaining it afterwards in terms of the stated objectives. At any rate I wish to reaffirm my faith in the value of the two sets of objectives as criteria in choosing material for a curriculum and express my faith in the wisdom of the committee.

Applying the North Central Association Standards to the Reorganization of Secondary School Music*

By C. F. DISSINGER, LA GRANGE, ILLINOIS

Some time ago the request was made for this discussion under the heading "The Application of The North Central Association Standards to Music." In a more recent letter the central theme of the meeting was announced as "The Application of the North Central Association Standards for the reorganization of secondary school subjects." Therefore an attempt is made to treat the subject with due consideration to the reorganization phase of the topic.

The material under discussion is found in the 1928 issue of the North Central Association quarterly, page 504. It consists of a treatment of six music courses, namely: 1. History and Appreciation, 2. Theory and Harmony, 3. Choral Music, 4. Orchestra, 5. Band, and 6. Applied Music. The development under each subject consists of two parts; the first is a suggested music course as prescribed by the University of Wisconsin, of type and content such as to be worthy of entrance credit to that institution. The second part is an outline and elaboration of the North Central objectives.

The subject of application of standards to reorganization is to be approached here from the view point of the needs of high school music. No cure can be wisely prescribed except as it applies to the ills of the patient. It cannot be denied that weak points exist in present high school music. The North Central Standards are an adequate basis for reorganization to the degree in which they administer to those needs.

One of the chief needs of secondary

school music has been for more clearly defined objectives. Two important considerations are: first, their selection and second, their use or application to various music subjects. Objectives selected should be sufficiently comprehensive to cover the values inherent in the various courses. In the Bulletin "Music in Secondary Schools" published in 1927 by the Bureau of Education, the values of music as a high school subject are listed as: 1. Aesthetic, 2. Social, 3. Worthy leisure, and 4. Vocational. All of the North Central objective values are found here with the exception of the one of health.

At the Chicago meeting of the National Music Supervisor's conference a symposium occurred dealing with the topic "What are the Objectives in School Music and How may they be evaluated?" At that time one speaker stated, "The objectives in music education are to cause children to learn to sing, to play, and to listen so they will come to love and understand good music so genuinely, so sincerely that their school-day enthusiasm for it will continue long after they graduate and all their lives they will derive deep satisfaction from their contacts with the art."

A second speaker on the subject said, "To my mind the real objective is to establish in the consciousness of our pupils an understanding of music, not as something entertaining and beautiful but as something which both appeals to and expresses our innermost emotions."

It appears that these two speakers were discussing the subject with a view to setting forth an all-inclusive objec-

*A paper read before the Commission on Unit Courses and Curricula, at the Chicago meeting, March 15, 1929.

Table I. Data Collected from the Following High Schools: Waukegan, New Trier, Oak Park, Proviso, Morton and La Grange

	Total Enrolled		Vocational		Non-Vocational	
	No.	%	No.	%	No.	%
HISTORY and APPRECIATION	8		4		4	
	70		10		60	
	29		0		29	
	107	3 $\frac{1}{3}$ %	14	13%	93	87%
THEORY and HARMONY	25		13		12	
	15		9		6	
	70		10		60	
	26		1		25	
	3		3		0	
	139	4 $\frac{1}{3}$ %	36	26%	103	74%
CHORAL	177		13		164	
	400		0		400	
	476		0		476	
	70		6		64	
	610		0		610	
	1733	53 $\frac{2}{3}$ %	19	1.1%	1714	98.9%
INSTRU- MENTAL	259		69		190	
	120		18		102	
	200		0		200	
	240		2		238	
	175		10		165	
	252		25		227	
	1246	38 $\frac{2}{3}$ %	124	10%	1122	90%
Totals	3225	100%	193	6%	3032	94%

tive. They placed emphasis on the cultural, subjective and emotional values, which we may classify as the aesthetic, listed first in the report previously mentioned in the Bureau of Education Bulletin. Music and education will probably suffer little from an over emphasis of the aesthetic value, but danger lies in its omission or partial exclusion by more immediate and trivial objectives, which often absorb the attention of the music teacher. In view of the need for a comprehensive list, consider the North Central objectives: 1. The Health, 2. Social, 3. Vocational and 4. Leisure. The aesthetic is not listed as an ultimate aim but is touched on under the discussion of health and leisure time objectives, also

as a sub-topic or immediate objective of the social, as knowledge useful in the control of situations in everyday life; development of attitudes, interest, motives, ideals, and appreciations. Emphasis in the outline of the aesthetic value in a more extensive elaboration of the leisure time objective, especially under the choral and instrumental music course, would serve to avert the danger of overlooking this aim. Otherwise the North Central Standards seems to satisfy the need for aims sufficiently comprehensive for the field of music.

Let us next consider the application of the objectives to particular subjects. The need here apparently is the proper

Table II. Opinions from Six Music Supervisors Concerning the Value of Objectives in Various Music Courses

(a) Health	(b) Leisure	(c) Social	(d) Vocational	
Subject	Supervisors' rating of objectives in order of importance			
	(1)	(2)	(3)	(4)
HISTORY and APPRECIATION	b	c	d	a
	d	b	c	a
	d	d	b	a
	c VOC.	b LEISURE	d VOC.	a HEALTH
	b	b &	c &	a
	b	c SOCIAL	a SOC.	d
THEORY and HARMONY	d	b	c	a
	d	b	c	a
	d	c	b	a
	c VOC.	b LEISURE	d SOC.	a HEALTH
	d	b	c	a
	d	b	c	a
CHORAL	c	b	a	d
	b	c	d	a
	b	c	a	d
	c LEISURE	b SOC.	d HEALTH	a VOC.
	b	c	a	a
	b	c	a	d
INSTRUMENTAL	b)		d	a
	c)	(equal)	d	a
	b	b	c	a
	d LEISURE	b SOC.	d VOC.	a HEALTH
	d	c	a	d
	b	c	d	a
	b			

evaluation of objectives, considering the nature of the pupils in the group and selection of subject matter on such basis. For instance, the nature of a class as to its vocational or non-vocational trend must be considered with respect to objectives and treatment of subject. Thus, an advanced orchestra group which is largely non-vocational probably should be conducted from the standpoint of developing the appreciative side rather than attaining technical perfection to the extent which might be desirable in a vocational group.

As an aid in the noting of differences in the nature of groups enrolled in music courses, a brief questionnaire was recently sent to a few neighboring high schools. Lack of time prevented any

extended survey; however, reports were received from six schools of varying size and representative of different types of suburban communities, namely: Waukegan, New Trier, Oak Park, Proviso, Morton, and La Grange. The total number of students enrolled in music courses in these high schools is 3,325. These students are probably typical of high school music students in general.

In History and Music Appreciation Courses there are 107 enrolled or 3 1-3 % of the entire music group. According to supervisors' estimates, 14 were considered to be vocational students, or 13 % of all students in the course. One school reports a class where 50% were vocational students. In another school a

class in the subject is reported as 100% non-vocational. Should we expect the same material and treatment to be used in each of these classes? For the non-vocationally inclined class a certain amount of historical detail might be omitted and the appreciative listening side stressed. For the vocational group, more attention to technicalities and detail would be of value. In the questionnaire referred to, the supervisors were asked to rank the four objectives according to their estimation of value in each particular course. In the History and Appreciation course this vote resulted in the majority ranking the vocational objective first; with leisure and social tying for second; vocational and social third; and health, fourth. This would signify that to the majority of these teachers, History and Appreciation of Music is considered to be more or less technical rather than a broad cultural course adapted to the average listener. However, the designers of the course in the outline had the latter type in mind according to their statement, "A course such as this, designed primarily to develop the appreciative powers and general culture, will naturally reach a larger number of persons than those courses demanding musical ability and technical skill." For a course which would reach so large a number and where the vocational trend would be very slight, possibly a better name to apply would be merely Music Appreciation, in order not to confuse it with one designed for a more select and vocationally inclined group.

The next subject treated in the report is Theory and Harmony. In the average high school this seems to be the most strongly vocational of the list. Of 3,325 students, 139 or 4.1-3%, are enrolled here. In these classes 26% were classified as vocational students. The instructors' rating of objectives placed the vocational objective of first importance, with leisure, second; social, third; health, fourth.

Choral music apparently draws the largest numbers with the vocational objective of slight importance. In the six high schools 1,733, or 53.2-3% of all

music students are found in the various choral organizations. Only 11-10% of these are rated as vocational. Teachers need is found here for a wealth of material, carefully selected, classified, graded, and suited to high school needs.

The last subjects fall under the general head of instrumental music. This group has 1,246, or 38.2-3%, enrolled with 10% rated as vocational. Supervisors' rating places the leisure objective, first; the social, second; vocational, third; and health, fourth.

The preceding discussion and data on the evaluation of objectives emphasizes the fact that differences in the nature of groups exist, as illustrated by the varying vocational trends for subjects. This places upon the teacher the responsibility of adapting subject matter and objectives to individual and group differences.

Before passing to the next point of the discussion of reorganization, some comment might be expected on the sub-topics of the outline as well as the suggestive material which goes to make up a large portion of the report. The sub-topics, or the more correctly termed immediate objectives, should prove of great value in broadening the instructor's conceptions of objectives pertaining to various subjects. A clearer conception of the interrelation of common aims running through the various courses should be gained. An extensive amount of listed material is of great value to the teacher; the outline provides this in some instances but in others a longer list would offer more variety and choice.

A further need in reorganization is the matter of standardization of High School music. Although standards have been raised greatly in recent years, there still remains a lack of uniformity pertaining to a number of phases. There exists a great divergence in quantity and quality of content in similar courses in various schools. This same condition exists in regard to equipment, such as, library material, facilities for listening in music appreciation classes, instrumentation in bands and orchestras, etc. Time allotment for courses still varies although standards here are rapidly be-

coming the same as those existing for other subjects where similar credit is allowed. Teaching requirements seem to need more standardization and likewise the granting of credits for music.

Secondary schools have done much to help themselves in the matter of standards in recent years, but is there not a great external factor in the solution of this problem? Such a solution might rest with the higher institutions. Colleges would be in an advantageous position for the setting of standards for high school music by their placing of entrance credits in music on an equal basis with those of other subjects. These institutions could then demand that courses come up to certain qualifications in order that their credits be honored. Much has been said of late as to the importance of education for worthy use of leisure time and also of the value of general development of an appreciation of the arts. Great advances have been made in the last ten years, until music in many high schools is on an equal basis with other subjects. Yet, it is still the policy of many higher institutions to give little recognition to high school music credits. Quite commonly, music entrance units are limited to one or two, and these confined to History of Music, or Theory and Harmony; that is, to those courses which have a strong leaning towards the vocational side. An unfair discrimination against the non-vocational or leisure time music courses appears to exist. Yet most of secondary school music is given over to this type, the choral and instrumental. According to our aforementioned statistics, ninety-two per cent of all the music students of the six high schools are in these courses, which the colleges would recognize least. Higher institu-

tions might reply that standards have not been such as to warrant more recognition. Yet it rests within their power to demand the standards they desire. Possibly no other means would be as immediate in bringing about results.

The report of the committee presents such a plan, set forth in the University of Wisconsin material. They accept high school music credits for entrance to the extent of four units. The various courses are prescribed, with standards set for content, equipment, time allotment, general procedure, etc. The suggested courses are comprehensive, suggestive and somewhat flexible. It appears to be a decided step forward in setting up of standards for high schools and in motivating their adoption by recognition of credits for courses qualifying. It is hoped that all higher institutions soon will take similar action. This might necessitate an adoption by universities and colleges of these or similar standards for the sake of uniformity. Thus within the report is found a solution for the need for standardization in the field of secondary school music.

In conclusion, the North Central Standards 'apply in a valuable way to the reorganization of secondary school music. The statements and elaboration administer to the need for objectives sufficiently comprehensive in scope. The scope of the material allows the teacher to properly evaluate objectives and adapt materials with consideration for the varying needs of pupils. The report contains a working example in the Wisconsin material of what Higher institutions may contribute in meeting the need for better and more uniform standards in secondary school music.

Reorganization in Physics

By A. W. HURD, UNIVERSITY OF MINNESOTA*

This article includes portions of the progress report printed in the March 1929 Quarterly. In addition, certain considerations engaging the sub-committee in physics are set forth. Not only are the ultimate and immediate aims as stated in the general Committee report made the fundamental basis of the attempt at reorganization in physics but other desirable features are incorporated. For example, the present organization is not entirely discarded but changes are made in accordance with the results of an analysis of suggestions of persons suitable to cite as authorities. To illustrate:—The writer in 1926, made an analysis of literature written from 1900 to 1926 inc., which contained statements bearing upon our courses in physics. These statements were tabulated under the categories, (1) aims, functions, values, purposes; (2) present inadequacies and suggested remedies; (3) desirable method; (4) place of the laboratory, recitation, and demonstration; and (5) desirable content. One hundred sixty-two statements of 68 authorities were finally condensed into five inclusive statements covering number 1, which are as follows, in order of times mentioned: Physics (a) reveals and interprets physical life, giving breadth, perspective, and balanced appreciations; (b) develops a rational individual able to use certain specific knowledge, skills interests, abilities, or habits in better solving the every day problems of life; (c) develops social and vocational efficiency; (d) prepares students for college entrance; and (e) teaches the laws and principles of physics. These statements were obtained from as nearly an

objective analysis as the writer could make.

Under the category of present inadequacies and suggested remedies, the following statements were finally summarized, the statements being stated in terms of desirable remedies in order of the number of times mentioned in 224 statements by 110 authorities: we need (a) well chosen subject matter suited to the needs of the pupils; (b) more careful selection and training of teachers for the teaching of high school pupils; (c) well defined aims and objectives; (d) greater responsibility and freedom of action of pupils with motivation emphasized; and (e) methods of science used to determine future changes in the course.

Under the category, desirable method, a similar condensation of 104 statements by 52 authorities yielded the following in order of mention: (a) real problems or projects of the pupils' environment based on actual experiences; (b) begin with phenomena or applications and proceed finally to generalizations; (c) psychological order rather than logical; (d) logical development; and (e) supervised study.

Under the category: place of the laboratory, recitation and demonstration, 41 statements of 19 authorities yielded only a very general summation which could be considered as a concensus of opinion, viz., laboratory, class recitation, and demonstration should be combined to form a single, unified course, each being used when the occasion seems best to demand it. The inference here is that there is no choice necessary among these alternatives such as to exclude the others altogether; neither should an artificial time division be made among them to give each its quota of time. On the other hand each should be used to supplement the others

*An address delivered before the Commission on Unit Courses and Curricula at the time of the annual meeting in Chicago, March 13, 1929

when and where it is obviously more superior in accomplishing the purpose intended.

Under the category, desirable content, 125 statements of 75 authorities yielded the following in order of mention: (a) Community or environmental applications or illustrations useful to the pupil; (b) facts, laws, principles, or methods; (c) historical and biographical material; (d) both qualitative and quantitative material; (e) big dynamic things; (f) metric system and decimals; (g) activities to be engaged in rather than subject matter; and (h) problems illustrating principles.

If the number of statements in each division is any criterion of what problems were uppermost in the minds of the authorities, the order of importance of categories was as follows: (1) present inadequacies and suggested remedies; (2) aims, functions, values, purposes; (3) desirable content; (4) desirable method; (5) place of the recitation, laboratory, and demonstration. Without limitation to any one category, the following five summary condensations received the most frequent mention: (a) there should be well chosen subject matter suited to the needs of the pupils—144 statements; (b) physics reveals and interprets physical life, giving breadth, perspective, and balanced appreciations—74 statements; (c) the content should include community or environmental applications or illustrations useful to the pupils—63 statements; (d) physics develops a rational individual able to use certain specific knowledge, skills, interests, abilities or habits in better solving the every day problems of life—54 statements; and (e) the content should include real problems or projects of the pupils' environment based on actual experiences—45 statements.

Such an analysis is very difficult to make objectively, but there are certain outstanding points receiving emphasis which make it worth while even though not entirely objective. While they do not settle the problem of the best physics course, they give very definite impressions of some of the problems upon which

to concentrate attention in order to develop the most desirable course. The writer takes some liberty in deriving the following four fundamental premises from the analyses:

1. The course in physics should add to the pupils knowledge as much as is feasible about the physical world in which he lives, so that he may use it in his every day life to make him more efficient socially and vocationally.

2. The subject material should bear upon his necessities and his experiences in daily life.

3. The method should be largely project and problem, following a natural psychological order built upon the pupils' present knowledge.

4. Laboratory, recitation, and demonstration should not be arranged on a definitely divided time basis, if it can be avoided, but should dovetail together in a manner determined by the nature of the task, the purpose in mind, and the facilities at hand.

The foregoing principles may be very well combined with the ultimate and immediate objectives of the North Central Association Committee given in the preceding chapter. Pending studies to determine the validity of these principles, a tentative reorganization of the course in high school physics may be attempted based on these principles, and the committee stated aims and objectives. The changes to be made need not be unduly radical, but may aid in a sane constructive evolution, in keeping with the canvas of the expressed opinions of many experts. Such a reorganization is now being attempted by the members of the sub-committee on physics. The plan is briefly this:—

First to select certain unit names based on concrete, environmental material, which material may serve to center attention upon well recognized groups of physical laws and principles, and which material may be more clearly understood through a study of such laws and principles. For example, nineteen topics have been tentatively selected around which to organize teaching units. The following are the titles:

Unit I—What are hydrometers, for what are they used, and what essential phase of science do they illustrate?

Unit II—What are simple machines and of what value are they.

Unit III—Principles of liquid and gas pressure and their applications in water and gas supply systems.

Unit IV—Applications of the principles of fluid pressure in water and air craft.

Unit V—Heating, ventilating, and humidifying systems.

Unit VI—Refrigeration and other applications of heat energy.

Unit VII—Atmospheric electricity and some of its manifestations.

Unit VIII—Electric lighting systems.

Unit IX—Electric generation and transmission.

Unit X—Electricity and communication.

Unit XI—Electro-chemistry and the storage battery.

Unit XII—Photography and picture projection.

Unit XIII—Telescopes and microscopes.

Unit XIV—Light projectors.

Unit XV—Color and some of its phenomena.

Unit XVI—Musical instruments.

Unit XVII—X-rays and other radiations.

Unit XVIII—Simple manifestations of gravity.

Unit XIX—The automobile (review unit).

Anyone well versed in physics will recognize at once the possibilities of teaching the really important laws and principles of physics in connection with the list of units given, and in addition note the possibilities of utilizing the principles of organization derived from the analysis of literature, and the statements of ultimate and immediate aims and objectives set forth by the North Central Association Committee.

In pursuance of this plan, the subcommittee has formulated tentative outlines of the units, after first selecting the ultimate objectives which in their collective opinion may best be accom-

plished in this unit. The items in each unit are pupil activities, seeking to impart definite informations, appreciations, techniques, and habits and skills. Unit I has been once revised, the revision being based on the criticisms of six co-operating teachers in four schools who used the unit in teaching. It must be examined with the provision kept in mind that it is the introductory unit. The title concerns a commonly used, everyday device. The leisure time, and vocational ultimate aims are selected as major. The list of common activities for all pupils is almost without exception a list of problematic situations. "Knowledge," "technique," "appreciation," and "skill" items are included. Knowledge items include preparatory knowledge, knowledge which is designed to function in discovering and developing dispositions and abilities, and knowledge which should function in life situations. The "technique" items include problems, with special attention paid to the processes of one's mind in solving problems in general, no matter of what kind, technique in experimentation, and the tabulation of experimental results. The "appreciation" items include appreciation of the metric system of measurements, measurement as a factor in modern life and in science, and accuracy in measurement. The "skill" items are in the nature of drill on some of the "knowledge" and "technique" items. An outline of Unit I is given here as an illustration of the plan used.

UNIT I

What are hydrometers, for what are they used, and how do they illustrate an essential phase of science?

Leisure time, and exploratory-vocational and vocational aims, primarily.

Common activities for all pupils following a pretest covering a large sample of minimal essentials.

For the knowledge objective, primarily.

1. Study the construction of metric tables of length, area, volume, and weight. (For area and volume, use sq. and cu. units of length, respectively).

2. Review the English tables of length, area, volume, and weight.
 3. Memorize: 1 kilogram = 2.20 lbs.; 1 liter = 1.06 qts.
 4. Explain the origin of the units: meter, kilogram, liter.
 5. Show how the number of inches in the various multiples and subdivisions of the meter may be quickly and conveniently found from the number 39.37.
 6. Density is defined as the weight per unit volume. Explain the meaning of this statement by concrete illustrations.
 7. Specific gravity is defined as the ratio between the weight of a body and the weight of an equal volume of pure water at 40 degrees C. Explain, by concrete illustrations, the meaning of this statement.
 8. Explain concretely the distinction between density and specific gravity.
 9. Explain why some density tables are the same as specific gravity tables.
 10. Study the construction of a battery hydrometer and a radiator solution hydrometer.
 11. Find out what solutions are used in batteries and automobile radiators.
 12. Explain how the two hydrometers mentioned are used in practice.
 13. Draw a diagram of a hydrometer showing the differences in scale calibration of the two types mentioned.
 14. Explain the effects of different liquids in floating the hydrometer at different levels (e. g., the lighter the liquid, the lower the hydrometer sinks).
 15. Show what relation exists between the weight of the hydrometer and the weight of the liquid it displaces. (Archimedes' Principles applied to floating bodies).
 16. Explain the relations existing between (1) battery charge and hydrometer reading, and (2) radiator solution freezing point and specific gravity.
 17. Make a list showing many common uses of hydrometers.
 18. Make a list of vocations associated with the use of hydrometers.
 19. Use a balance and weights to weigh a specific gravity bottle.
 20. Explain the proper use of a balance and weights in weighing an object.
 21. Find the specific gravity of some liquid by the use of a specific gravity bottle, a balance, and weights.
- For the technique objective, primarily.**
22. Find the height in cm. of a man who is 5' 9" tall.
 23. Explain as nearly as you can the procedures which your mind followed in solving the problem of (22).
 24. List the steps in (23) which are common to the solution of any problem, no matter of what kind.
- Solve the following problems, noting the steps listed in (24), which are followed in each case:**
25. Find the weight in kgs. of a man weighing 180 lbs.
 26. Find the capacity (in liters and gallons) of a tank which measures 4m. long, 2m. wide, and 160 cm. deep.
 27. Find the weight in g., kg., and pound, of water which would fill the tank described in (26).
 28. How would you verify the statement that "a pint's a pound, the world around"?
 29. Find the density in gm. per cm.³ of a block of iron 10 by 5 by 4 cm. weighing 1.5 kg.
 30. A block of stone weighing 812 lbs. measures 4 ft. by 12 in. by 15 in. What density has it in lbs per ft.³?
 31. Find the number of kg. of mercury in a flask containing 140 cc.
 32. Find the weight of 2 cu. ft. of aluminum whose density of 265 gm. per cm.³.
 33. Find the volume in cu. ft. of the cork in a life preserver weighing 22 lbs. whose specific gravity is .2.

34. Find the weight in lbs. of a cake of ice measuring 20" by 16" by 24", its specific gravity being .91.
35. How many cc. of concentrated sulphuric acid must be mixed with a liter of pure water in order to make a solution of specific gravity 1.28?
36. Find the number of cu. ft. of water displaced by a row-boat weighing 300 lbs.
37. A barge weighing 700 tons will displace how many cu. ft. of water after taking on 200 tons of coal?
38. Explain how the capacity of a bottle may be found by means of a balance and weights.
39. Show how a long test tube might be graduated to read cc. by using only a balance and weights.
40. Find the density of a piece of ice which floats 9-10 submerged in water.
41. Find the length of a brass cylinder which weighs 20 g., the diameter being 2 cm. and the density of brass 9.5 g. per cm^3 .

Experimentally determine:

42. The density of cylinders of brass, aluminum, and copper by using vernier calipers and a balance with weights.
(Make a tabulated record of your work to show all measurements and computations made).
43. The number of cm. in an inch and the number of cm^2 in an inch by measuring the dimensions of a rectangular piece of paper with an inch and a cm. rule, respectively,
(Make a tabulated record of your work to show all measurements and computations made).

Experimentally determine as in (42) and (43):

44. The specific gravity of alcohol by using a specific gravity bottle, alcohol and a balance with weights.
(Tabulate Measurements and Computations.)

For the habit and skill objective, primarily.

45. Drill in multiplication and division of decimals in order to review rules of pointing off decimal places.
46. Drill on such mental problems as: how many mm. in a m.?; how many mg. in a kg.?; and how many cm. in a mm.?; how many inches in a meter.?; how many lbs. in a gm.?; how many inches in a cm.?; etc.
47. Make several hydrometer determinations of specific gravity until accuracy is obtained.
48. Take at least three practice tests, one each week, on all the work covered to date in the unit. These should be short answer questions covering much ground, and sample problems. One may be as follows:
 - a. If the density of a body is 3.4 gm. per cm^3 , what is its specific gravity?
 - b. What is the density of the same body in lbs. per ft^3 ?
 - c. A density bottle of capacity 50 cc. weighs 25 g. empty and 80.35 g. filled with oil. Find the density of the oil.
 - d. Calculate the weight of a rectangular sheet of aluminum 1 ft. sq. and $\frac{1}{2}$ " thick, its specific gravity being 2.7.
 - e. A piece of gold weighs 772 g. Find the weight of a piece of lead of the same volume. The specific gravities of lead and gold are 11.3 and 19.3, respectively.

A long practice test may be given the day preceding the final test, preferably consisting of 30 short answer questions reviewing the items of information and problem content.

For the appreciative objective, primarily.

49. Write a theme on the relative advantages of the English and Metric systems of measures.
50. Discuss or seek to answer the question, "What is measurement and why is it an essential element in modern life?"

51. Carefully consider the relation of measurement to the progress of science. Give concrete illustrations.
52. Cite five cases demanding more than ordinary accuracy of measurement.
53. Show how the accuracy of a measure may be judged.
54. Illustrate the meaning of accuracy of less than 1% error.
55. Find the per cent of error in a measure of .1697 meters, when the mean of 5 careful measurements is .1701 meters.
56. Make a list of (1) devices and (2) units of measure which are now used to measure the following: water pressure, time, force, distance, electric current, temperature, humidity, electric power, specific gravity of liquids, weight, heat, intensity of a light, electric pressure, intensity of illumination, electric energy, gravity.

Final test on a large sample of minimal essentials.

Suggested additional activities for capable or problem pupils:

1. Make measurements with a vernier caliper to obtain volumes.
2. Make measurements with a micrometer to obtain volumes.
3. Make measurements with a diagonal scale and dividers to obtain volumes.
4. Prepare a paper on kinds of radiator non-freeze solutions.
5. Prepare a paper on the life of Archimedes.
6. Prepare a paper on the history of the hydrometer.
7. Prepare a paper on types of balances and their uses.
8. Prepare a paper on weight-making-variations in quality.
9. Prepare a paper on fine measuring devices.
10. Prepare a paper on gasoline testing.
11. Prepare a paper on milk testing.
12. Prepare a paper on types of hydrometers and their uses.
13. Prepare a paper on the history of

the English system of weights and measures.

14. Prepare a paper on the history of the Metric system of weights and measures.
15. Prepare a paper on, "Tabulation as and Aid in Science."
16. Prepare a paper on "A Visit to a Battery Station."
17. Make a hydrometer.
18. Diagram types of hydrometers.
19. Make a large metric-English equivalents chart.

References

Several of the more widely used texts, e. g.:

1. Practical Physics—Black and Davis.
2. Practical Physics—Carhart and Chute.
3. Elements of Physics—Milliken, Gale and Pyle.
4. Elementary Principles of Physics—Fuller, Brownlee and Baker.
5. Physics for Secondary Schools—Sears.
6. Essentials of Modern Physics—Dull.
7. A High School Course in Physics—Gorton.
8. Essentials of Physics—Hoadley.

Books and Pamphlets

9. Libby—Introduction to the History of Science.
10. Buckley—A Short History of Natural Science.
11. Cajorie—History of Physics.
12. Book of Popular Science—Grolier Society, Vol. 14, p. 4901—"How Things Are Measured."
13. Book of Popular Science—Grolier Society, Vol. 14, p. 5035—"The Size and Weight of Things."
14. Compton's Pictured Encyclopedia, Vol. 9, p. 3713—"How Long, How Much, What Does it Weigh?"
15. Compton's Pictured Encyclopedia, Vol. 5, p. 2206—"Metric Weights and Measures."
16. Any good encyclopedia.
17. Burns, The Story of Great Inventions—Ch. 1.
18. Circular—Bureau of Standards No. 92—"Operation and Care of Vehicle Type Batteries," p. 43.
19. Circular—Bureau of Standards No. 55—"Measurements for the Household," Chapters 1 and 2 and the Appendix.

20. Mendelson, H. G. "Gasoline Facts"—Bradford, Pa.: The National Tank Auditing Service, Inc., 1926—Especially Ch. V.
21. Boyd, T. A. "Gasoline—What Everyone Should Know About It"; New York: Stokes, 1925. Especially Ch. VI, p. 111-12.
22. Allen, A. H. "Commercial Organic Analysis," Vol. 4, London: Churchill—Especially Specific Gravity of Milk, p. 151 and the following pages.
23. Publow and Troy—"Questions and Answers on Milk and Milk Testing," New York: Orange, Judd and Company, 1909. Especially p. 22-34.
24. Frederiksen, J. D. "The Story of Milk"—New York: Macmillan Co., 1919; Especially—"How to Test Milk," p. 15-19.
25. Ball, F. E. "Make the Dairy Pay"—Colorado Experiment Station, No. 295, Dec., 1924. Especially Testing and handling milk and cream, p. 20-28.
26. Johnson, Julia E. "Metric System." New York: H. W. Wilson Co., 1926. Also contains a large bibliography.
27. Perkin, F. M. "The Metric and British Systems of Weights, Measures, and Coinage." New York and London: Whitaker, 1907—Contains also a chapter on Specific Gravities.
28. National Industrial Conference Board—"The Metric versus the English System of Weights and Measures"—Research Report No. 42, 1921, New York: The Century Company.
29. Drury, A. "World Metric Standardization—An Urgent Issue." San Francisco: World Metric Standardization Council, 681 Market St.
30. Tycos Tables—Taylor Instrument Co., Rochester, N. Y.—Especially: "How to Read the Hydrometer," p. 47-9. Indicated S. G. of Mineral Oils, etc., p. 59-66. The Lactometer, p. 121-7. Other Material, p. 47-127.
31. "The Baumé Hydrometers"—Memoirs of the National Academy of Science, Vol. III, p. 63-71.
32. Machinery's Reference Series No. 21 Measuring Tools, New York: The Industrial Press, 1910. "History and Development of Standard Measurements," p. 3. "Calipers, Dividers, and Surface Gauges," p. 11. "Micrometer Measuring Instruments," p. 22. "Miscellaneous Tools and Gauges," p. 40. Scranton: International Text-Book Co., .
33. International Library of Technology 230, 1920—Sections 9 and 10 "Measuring Instruments and Precision Measuring Instruments."

Periodical Articles

34. Popular Science Monthly, May, 1927—"Is Your Yard Yours?"
35. Popular Science Monthly, April, 1927—"Shall We Scrap the Yardstick?"
36. The Science Classroom, Nov., 1927, p. 4 "Units of Measurement."
37. Department of the Interior, Technical Paper 166—"Motor Gasoline: Properties, Laboratory Methods of Testing and Practical Specifications"—E. W. Dean, 1917.
38. Automotive Industries—"Johansson, Apostrophe of Mechanical Accuracy in America" Sept. 25, 1919, p. 608-12.
39. "Measurement"—Articles in the January and April numbers, 1928—Published by Metric Association, 156 Fifth Ave., New York.

From the viewpoint of the physicist, the unit functions in teaching something concerning density and specific gravity and the elements of measurement and experimentation. The succeeding units constitute enough of the materials usually thought of as conventional physics to satisfy requirements likely to be made by any college or educational board. The course, as a whole, does depart considerably from the stereotyped logical arrangement so long followed, but is not illogical in any way, all units being based on preceding units, from the standpoint of the development of laws and principles. Applications are at all times the cores around which the units are constructed. Knowledge is always stressed as a vehicle for understanding certain aspects of our common environment, not as an end in itself, and knowledge items are as closely connected with the devices which they are introduced to explain, as is feasible.

Many special projects are suggested, but the plan is always only to suggest, the pupil being encouraged to select pro-

jects for himself. The word, project, is here used only to mean some activity which is largely planned and carried out by an individual pupil, which is not assigned to all members of the class.

It is assumed that the class members have some current text-book of physics, but several other texts are mentioned for reference. Other references are included, those given for all units constituting a comprehensive list of library books suitable for a high school science library. Periodical references are largely omitted because it is thought that current periodical articles should be those most often consulted, as they are more up-to-date, and will probably attract greater attention on this account.

Unit I, it is seen, involves no complicated mathematics, only arithmetic and simple algebraic equations being necessitated. All of the units follow the plan of a minimum of mathematics. While there are many problems involving quantitative measurement or computation, the object is primarily to teach physical laws and principles so that one who has studied arithmetic, the elements of algebra, and the elements of plane geometry may be able to understand them. The algebra and geometry are very elementary in character. The view is taken that there is plenty of material in physics to engage the mind of any high school pupil, without it being necessary to introduce any abstract mathematical complications. Tests, so far given in high school physics show abundance of room for improvement on the part of any high school pupil, so that it is felt that a more abstract mathematical treatment is not the thing desired so much as a more purely practical survey of the applications of physics in every day life. The view point of practical engineering is the one followed rather than the abstract mathematical and theoretical viewpoint of the research physicist.

Each unit has been devised to take approximately three weeks of school time. This is only tentative, the results of experimental try-outs being depended upon to furnish data on the amount of time desirable. Data collected from these

try-outs will also furnish evidence concerning other features of organization as for example, whether the material is too difficult or too easy; whether more time will make possible more desirable achievement; whether it is possible to devise methods which will accomplish more perfect achievement on the part of all pupils; what achievement is reasonable to expect of pupils; and so on. It is obvious that these try-outs involve testing, and tests have been prepared to be given preliminary to, and at the expiration of, each unit. These tests have been made to parallel fairly closely the items in the unit outlines, so that they may test "knowledge" elements, "technique" elements and "appreciation" elements. Each test is fairly comprehensive, requiring 50 minutes of time. Final outlines of the units will eventually be determined, therefore, by the collection of factual data on achievement, the interpretation of these factual data, re-vamping of the units as seems desirable, and repeated try-outs until satisfaction results. The data collected may well include test score distributions; numbers and percentages of pupils making correct responses to test items; items added under the stress of varying class room conditions; opinions of cooperating teachers and of others whose opinions may be solicited; comparisons of pupils in other ratings, such as general mental ability, reading ability, mathematical ability, pupil interests and so on ad infinitum. As a matter of fact, no final stage may ever be reached but many principles may be discovered which will aid greatly in producing a more satisfactory state of affairs than we have at present.

Nothing arbitrary is laid down concerning methods to be used by instructors. An examination of Unit I will make it evident that any method may be used. Lessons may be assigned from day to day for the whole group, interspersed with special assignments to individuals; or daily assignments may be done away with, and individualized instruction followed, with each person allowed to proceed at his own speed. The field is thus opened up for tryouts of different meth-

ods and opportunity given for the development of entirely new methods, if such seem desirable or possible.

An examination of Unit I will show that there is overlapping in knowledge, technique, appreciations, and habits and skills. For example, a problem listed under techniques might serve as a means of imparting knowledge, or developing habits and skills. This is unavoidable but not undesirable. Any problem could be used to accomplish different purposes depending on what emphasis was placed upon it by the instructor. It might be used as a sample problem for solution, so that methods of solution could be studied. Various plans for solution could be used so as to formulate methods of solving all kinds of problems. There is such a thing as system in solving problems in general, and it should probably be the function of science to develop some scientific principles to be applied whenever problems present themselves for solution. Questions of analyzing the situation, collecting facts bearing upon it, making an hypothesis as to its solution, testing the hypothesis, and verifying the conclusion, would be introduced in this connection. The problem, on the other hand, might be given for the purpose of getting pupils to discover certain facts, or perhaps use them often enough to make them permanent acquisitions. It seems very important to realize that any given activity may thus be used for different purposes, but that the purpose in mind will determine certain stresses which will be instrumental in the accomplishment of the purpose intended.

A case in point is a laboratory experiment, say on the linear coefficient of expansion of a metal. This may be given, with the purpose of making the pupil learn clearly what the linear coefficient of expansion is. Or it may be given as a means of arousing interest in a study of the expansion of substances by heat. Or it may be given as a means of directing attention to the use and necessity of accurate measurement. Or it may be given as a sample of an experimental method of solving problems in general.

Or it may be used as a means of developing industry, initiative, systematization, or other desirable character traits. Or it may be used to keep pupils busy, or to prevent them from doing less desirable things. And so on. The emphasis would be placed on the particular purpose and the amount of stress probably largely determine the achievement in the particular line. Tests to measure such achievements would contain different kinds of questions, depending on the purpose in mind. One instructor might care little, for example, about accuracy of measurements. Another might be extremely concerned with such accuracy.

The factual data which have so far been gathered consist of score distributions of tests given preliminary to each unit and at the expiration of each unit; numbers and per cents of pupils giving correct responses to each test item in the preliminary and final unit tests; comparisons of juniors and seniors on the tests; comparisons of students having had general science and those not having had it; data for different schools on the preceding points; and lists of activities carried on by individual pupils in addition to those included in the list of common activities for all students. A brief progress report covering these data has been published in the March Quarterly 1929, of the North Central Association of Colleges and Secondary Schools. Some of these data are presented here.

Table I shows a distribution of scores in the preliminary and final Test I for 223 pupils who had taken the test both times, three weeks of instruction intervening between the two tests.

The distributions show what pupils have accomplished in measurable results due to the instruction or other happenings during the three weeks of intervening time between the preliminary and final tests. From a condition showing scores piled up at the low end of the distribution, a change has taken place so that scores are distributed in a form resembling a normal distribution. It should be kept in mind that the test was designed to measure a sampling of knowl-

Table I. Distribution of Scores in Preliminary and Final Tests I
Possible Score—73

Score	Pre-Test	Final Test
0—4.9	|||||||||||||||||||||||||||||||||||||||| 53	|||| 1
5—9.9	|||||||||||||||||||||||||||||||||||||||| 51	|||| 1
10—14.9	|||||||||||||||||||||||||||||||||||| 42	|||| 8
15—19.9	|||||||||||||||||||||||||||||||| 36	|||| 15
20—24.9	|||||||||||||||||||||||||||| 24	|||| 27
25—29.9	|||||||||||| 11	|||| 42
30—34.9	|||| 4	|||| 35
35—39.9	|||| 1	|||| 24
40—44.9	|||| 1	|||| 26
45—49.9	|||| 0	|||| 24
50—54.9	|||| 0	|||| 8
55—59.9	|||| 0	|||| 8
60—64.9	|||| 0	|||| 4
	223	223
	Mean 12.21 ± 1.49	33.84 ± .8
	S. D. 8.35	11.95

edge content, techniques, and appreciations. Test I is given here as an example of the questions used. It is almost entirely objective. Its reliability and validity have not been established but there are reasons for believing them high. Items 45 to 47 inclusive are appreciation paragraphs with certain key words deleted. Most of items 1 to 22

inclusive are information or problem items as are items 26 to 40 inclusive. Other items are mixed, with 48 primarily a problem and tabulation item, and 49 a rather difficult problem. Probably one would not think 49 a difficult problem but in the final test, it was solved correctly by only 9 pupils of 239.

Test I

In the following, put answers in the blanks following the questions. For 1, 5 and 6, write the letter designating the correct answer in parentheses; e. g., (a).

- 1. A decimeter is a unit of (a) weight, (b) volume, (c) area, (d) length—which? ()
- 2. Give the number of lbs. in a ton.
- 3. Give the number of centimeters in a meter.
- 4. Find the weight of 600 cu. cm. of pure water in grams.
- 5. A liter is a unit of (a) volume, (b) area, (c) weight, (d) length,—which? ()
- 6. A cubic meter is a unit of (a) volume, (b) area, (c) weight, (d) length,—which? ()
- 7. Give the number of sq. mm. in a sq. cm.
- 8. Give the number of milligrams in a centigram.
- 9. Give the number of centimeters in an inch.
- 10. Give the number of grams in a kilogram.
- 11. How many lbs. does 1 cu. ft. of pure water weigh?
- 12. Give the number of cu. cm. in a cu. dec.
- 13. Give the number of cu. cm. in a cu. meter.
- 14. Give the number of inches in a meter.
- 15. Find the weight of 9 liters of pure water in kg.
- 16. Give the number of sq. m. in a sq. km.

17. Give the number of centimeters in a kilometer.
18. Give the number of kilometers in a meter.
19. Find the number of cu. m. in a cu. km.
20. Find the number of lbs. in a kg.
21. Find the number of inches in a kilometer.
22. Find the weight of 1,000 cu. cm. of pure water in pounds.
23. Change to cu. cm.: 9 cu. dec., 6 cu. cm., 5 cu. mm.
24. Write in kilometers (one number) 6 meters, 3 dec., 6 mm., 7 km.
25. Write in sq. meters (one number) 3 sq. km., 5 sq. m. 7 sq. cm.

Write in the blank at the right of each item, the word or words which should be substituted for X to make the statement correct.

26. The weight per unit volume of a substance is called its X
27. The X of pure water at 4° C. is 1 gram per cu. cm.
28. The X is equal to weight divided by volume.
29. X is the ratio of the weight of a body to the weight of an equal volume of water.
30. X is the density of a body divided by the density of pure water at 4° C.
31. The specific gravity of a body is numerically equal to its density when the latter is expressed in X
32. An hydrometer is used to measure the X of liquids.
33. The weight of an hydrometer is equal to the weight of the liquid it X
34. An hydrometer floats X in light liquids than in heavy liquids.
35. The liquid in most common use in winter in automobile radiators is X
36. The liquid in the lead storage battery is X
37. The freezing point of the most common radiator solution is X when the specific gravity is higher.
38. The charge of a storage battery is commonly higher when the specific gravity is X
39. An hydrometer used for light liquids has its Q commonly at the X
40. An hydrometer used for heavy liquids has its Q commonly at the X
41. A body weighing 52 grams has a volume of 5 cu. cm. Its density is X per cu. cm.
42. The body in (41) has a specific gravity of X
43. A liquid has a specific gravity of 1.8 Its density in lbs. per cu. ft. is X
44. Fresh skim milk has a X specific gravity than fresh whole milk.
45. The metric system is X₁ convenient than the English system 1.
because it is arranged as a X₂ system. Every larger unit is 2.
X₃ times as large as the next smaller. To express any number 3.
in larger or smaller units, one must only X₄ one or more X₅ 4.
places to the X₆ or X₇ . 5.
6.
7.
46. Measurement makes X₁ possible. It seeks to answer definitely 1.
the question, "X₂ ?". The X₃ of science has been largely 2.
due to the X₄ of measurement. One cannot talk very X₅ 3.
about quantities until there are X₆ in which these X₇ may 4.
be expressed. 5.
6.
7.

47. The inaccuracy of a measure can be judged by comparing it with the
X₁ of X₂ measurements. This X₃ is probably more
nearly correct than any X₄ measure. Errors are usually ex-
pressed in X₅. A small error in a X₆ quantity may be
X₇ than a large error in a X₈ quantity.
48. Arrange the items which should be given in a tabulated form show-
ing how the specific gravity of a brass cylinder is experimentally
determined.
49. S. G. of H₂So₄ — 1.8; of water 1.0. What fraction of a quart
of mixture of S. G. 1.3 would be water?

The distributions for test II are quite similar to those for Test I, so they will not be given here. How do distributions such as these help in making clearer the problem of organization of courses? In the first place, they show that pupils do not accomplish what teachers feel they should accomplish. The test items cover the field of the common activities engaged in by all pupils. There is shown much room on these essentials for pupils to spend more time and effort in order to make possible greater achievement. Either they have not spent enough time and effort, the instruction has not been of as good a quality as it should have been, or the material is too difficult. A next step in the procedure is to try and find whether or not the first two contentions are true. This can be done by giving the pupils more time or exerting influences which will spur them on to greater efforts, and by trying different methods of instruction with different instructors. If these procedures do not show greater achievement, it can safely be held that too much is being expected of pupils. In that case, certain items may be omitted or no higher ratings should be expected. It may be a safe conclusion, for example, to consider the school as a place of opportunity for pupils of very widely differing capacities. The instructor presents the course so that there will be sufficient opportunity for each pupil of whatever capacity. He expects a greatly varying achievement. The distribution for Test I, for example, shows such a variation. With this conception, however, it must be kept in mind

that when a pupil passes on into a higher grade, it does not mean at all that he has mastered all the possibilities of the previous grade. On the contrary, it means only that he has been exposed to them. Then the responsibility rests to some extent on the pupil himself, but perhaps on many factors for which neither pupil nor teacher is responsible. To say the least, difficulties would perhaps be greatly clarified, if the list of minimal essentials were placed low enough to enable all pupils to achieve them with a reasonable degree of effort.

The unit tests should be revised, then, if they are to be used as minimal essential tests, until distributions are piled up at the high scores. But preceding this, it is very desirable that attempts be made to see whether or not it is possible to produce such distributions without reducing the expected requirements. This implies the use of the units under many and varying conditions, with many variations in method to discover if possible the best method and the relative efficiencies of various methods.

Table II presents a summary of the distributions of seniors on Test I and makes comparisons between them and the total group containing juniors in addition.

Table II. Summary of Distributions of Scores, Test I, Seniors

Pre-Test	Final Test
Mean 14.59 ± 1.06	40.00 ± 1.58
S. D. 8.35	12.80
Difference between Means and Means of Total Group—	
2.38 ± 1.83	6.16 ± 1.77
Difference ÷ S. E. of Diff. 1.30	3.48

A significantly higher mean score for the senior is shown, indicating that the seniors more nearly accomplish the objectives measured by the test than the juniors. The objectives of this unit are therefore better accomplished by seniors. "Could the unit be taught well in the ninth grade?" is a question to be answered. But the data indicate that it may be better taught in the twelfth than in the eleventh in the schools included here.

Table III shows a summary of the distributions of those having had general science.

Table III. Distribution Test I of Those Having Had General Science

<i>Pre-Test</i>	<i>Final Test</i>
Mean 12.7	37.76 \pm 1.4
S. D. 7.40	12.60

Difference \div S. D. of Difference = 2.6 for Means for Final of Total Group and those having had General Science.

The data indicate value in having general science. In other words, in order to accomplish the objectives, it is valuable for the average pupil first to study general science.

Table IV shows distributions of the various schools on the appreciation para-

Table IV. Distribution of Scores on Appreciation Paragraphs Test I, Possible Score 22

	<i>Pre-Test</i>	<i>Final</i>
0—1.9	96	14
2—3.9	25	14
4—5.9	24	19
6—7.9	31	45
8—9.9	23	33
10—11.9	10	39
12—13.9	5	17
14—15.9	2	19
16—17.9	1	10
18—19.9	0	4
20—21.9	0	5
	—	—
	217	219
Mean	4.32	9.36
S. D.	3.74	4.66

graphs included in Test I. These paragraphs are expressions of certain types of appreciation with deleted key words. Whether or not they measure this element well is unknown. They have not been used heretofore. Their validity has not been established.

There is a considerable shift from low to high in the two tests. This shift was much more noticeable in one school where more specific attention was paid to this feature. More attention should be given to this feature, because it is a new phase in the teaching of physics. It may be assumed that it is desirable. Therefore a study of the best method to use in accomplishing it is in order.

Table V presents the numbers and percents of pupils giving correct responses to items in Test I. An examination of this table shows that no item in the test had 100% correct responses by all pupils, though there are two items, 4 and 35, to which there are 100% correct responses by University high school pupils. Items 45-48 are omitted in the table because they cannot be tabulated in this manner conveniently. Items 45-47 inclusive are appreciation paragraphs, and item 48 is a tabulation.

Just what is the value of lists like those shown in Table V? In the first place, they show that, to the extent that the items measure the objectives set up, the objectives have not been thoroughly accomplished. Whether or not they can ever be accomplished to the degree of 100% correct response, is a matter to be determined by experiment. Extension of time given to a unit, and the devising of methods to specifically make possible 100% correct response are among eventualities to be tried out. Second, some items show such a small number of correct responses that their elimination must be seriously considered. Certain it is that either they are too difficult for the group, enough time has not been given, or enough direct planning for accomplishment has not been done. For example, in item 49, the specific gravities of H_2SO_4 and H_2O are given, and the question is asked, 'What fraction of a quart mixture of S. G. 1.3 would be

Table V. Numbers and Per Cents of Pupils Giving Correct Responses to Items in Test I Preliminary and Final

ITEMS	SCHOOL I				SCHOOL II				SCHOOL III				SCHOOL IV				TOTAL			
	38-Pre		40-Final		112-Pre		116-Final		70-Pre		67-Final		19-Pre		16-Final		239-Pre		239-Final	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	27	71	36	90	81	72	101	87	58	83	64	95	14	74	15	94	180	75	216	90
2	31	82	40	100	905	93	112	96	66	94	65	97	12	63	12	75	214	89	229	96
3	15	39	37	92	52	46	106	91	53	76	57	85	6	31	11	69	126	53	211	88
4	5	13	35	87	4	4	103	89	23	33	62	92	1	5	9	56	33	14	209	87
5	21	55	35	87	38	34	80	69	53	76	58	86	5	31	10	62	117	49	183	77
6	32	84	34	85	80	71	99	85	54	77	60	89	8	42	12	75	174	73	205	86
7	14	37	33	82	15	13	75	65	29	41	42	63	6	31	11	69	64	27	161	67
8	11	29	34	85	16	14	70	60	21	30	26	39	10	53	12	75	58	24	142	59
9	0	0	37	92	6	5	82	71	55	79	55	82	8	42	13	81	69	29	187	78
10	8	21	35	87	10	9	97	84	54	77	60	89	15	79	13	81	87	36	205	86
11	2	5	37	92	1	1	97	84	33	47	61	91	0	0	12	75	36	15	207	87
12	3	8	29	72	2	2	44	38	16	23	30	45	3	16	10	62	24	10	113	47
13	2	5	30	75	2	2	42	36	11	16	25	37	3	16	8	50	18	7	105	44
14	1	3	35	87	8	7	65	56	59	84	56	83	14	74	15	94	82	34	171	71
15	0	0	31	77	2	2	39	34	5	7	26	39	1	5	2	12	8	3	98	41
16	2	5	25	62	1	1	43	37	21	30	27	40	4	21	9	56	28	12	104	43
17	2	5	21	52	0	0	50	43	33	47	29	43	4	21	8	50	39	16	108	45
18	1	3	28	70	3	3	51	44	29	41	33	49	1	5	11	69	34	14	123	51
19	2	5	23	57	0	0	23	20	15	41	26	39	2	10	10	62	19	8	82	34
20	0	0	29	72	2	2	22	19	10	21	25	37	5	31	12	75	17	7	88	37
21	1	3	23	57	0	0	27	23	23	33	28	42	1	5	8	50	25	10	86	36
22	0	0	22	54	0	0	19	16	3	4	14	21	0	0	1	6	3	1	56	23
23	1	3	9	22	0	0	9	8	2	3	2	3	0	0	1	6	3	1	21	9

Table V. Numbers and Per Cents of Pupils Giving Correct Responses to Items in Test I
Preliminary and Final—Continued

ITEMS	SCHOOL I			SCHOOL II			SCHOOL III			SCHOOL IV			TOTAL		
	38-Pre			112-Pre			70-Pre			19-Pre			239-Pre		
	No.	%	40-Final	No.	%	116-Final	No.	%	67-Final	No.	%	16-Final	No.	%	239-Final
24	2	5	10	0	0	3	6	9	2	0	0	6	8	3	21
25	0	0	4	0	0	6	0	0	3	0	0	0	0	0	13
26	8	21	38	6	5	91	52	74	65	1	5	15	67	28	209
27	20	53	37	27	24	97	49	70	59	6	31	14	102	43	223
28	6	16	37	5	4	91	54	77	66	1	5	16	66	28	210
29	9	24	36	0	0	74	2	3	59	1	5	15	12	5	184
30	3	8	27	0	0	54	1	1	40	0	0	11	4	2	132
31	0	0	25	0	0	19	0	0	14	0	0	4	0	0	62
32	17	45	36	2	2	43	8	11	46	0	0	11	27	11	136
33	9	24	32	1	1	58	7	10	50	2	10	11	19	8	151
34	32	58	37	9	8	46	10	14	42	0	0	7	41	17	132
35	2	5	40	0	0	4	1	1	0	0	0	0	3	1	44
36	3	8	39	2	2	2	5	7	46	0	0	12	10	4	99
37	2	5	24	0	0	11	2	3	11	0	0	2	4	2	48
38	13	34	32	4	4	37	5	7	26	0	0	4	22	9	99
39	7	18	26	1	1	30	4	6	17	1	5	7	13	5	80
40	7	18	25	1	1	29	5	7	17	2	10	6	15	6	77
41	8	21	18	11	1	65	16	23	35	0	0	10	25	10	128
42	2	5	27	1	1	54	3	4	29	0	0	9	6	2	119
43	1	3	23	0	0	42	1	1	19	0	0	8	2	1	92
44	11	29	18	2	2	66	3	4	32	0	0	2	16	7	118
45	0	0	1	0	0	3	0	0	4	0	0	1	0	0	9

water?" But 4% of the total number of 239 pupils gave correct responses. Either the item is too difficult, enough time has not been given to it in the unit, or specific attention has not been directed to it. Space precludes more discussion of this phase there, but future procedures with regard to revision of the unit are indicated. Third, whether or not these items are desirable or essential for pupils enrolling in secondary school physics is a question which arises. To be sure, they were initially selected to accomplish certain objectives, but there may be doubts in the minds of readers of this book on this question. There still remains the necessity of determining to what extent these items are really essential in the functioning lives of people. No one will deny that each item represents something which is essential or important to some one. Whether it is essential or important to every pupil enrolling in the course is a question. Perhaps whether or not one could live a happy and useful life without it is the criterion to be used for judgment. Or whether or not one may live a richer and more complete life with it is perhaps a better question. No objective attempt has been made to settle this question for any item. Personal judgment is perhaps the best criterion at present. Cooperating teachers have been asked to help answer this question. It may be taken up on a larger scale after more people have become oriented to the nature of the plan in general.

Extra work included under additional activities for capable pupils was engaged in by a good many pupils. The following list is that for pupils in one school including Units I to III inclusive and part of Unit IV. A similar list for all cooperating schools has not yet been made.

Biographical sketches	55
Topical themes	27
Book reports	8
Extra problems	6
Extra laboratory problems	25
Small diagrams	7
Large diagrams	25
Charts	1

Trips with reports	3
Periodical reports	10
Explanations	11

A question which arises when the extra project work is considered, concerns the value of this work in view of the fact that achievement ratings on the tests fell so far short of perfection. Shall students be compelled to approach perfection in the essentials before being allowed to undertake the extra projects? A partial answer to this would be a tabulation showing the pupils undertaking this extra work. This has not yet been carried out, though a record for each pupil has been kept for two of the classes. For the most part, the pupils in these groups who undertook extra projects were the most capable pupils of the group, but there were a few among the less able who also engaged in these additional activities. There was a general understanding that activities for all pupils were to be completed before additional work was undertaken, but there was also an understanding that higher grades were to be given only to those doing extra work. Therefore some pupils tried to carry on extra projects while doing the regular work. This might be obviated by some compulsory rule, but it was not done with the units given here. There are always pupils who seem to prefer the extra project work to that in the regular outline, and there is a legitimate question as to whether or not these pupils should be held to the regular outline or allowed to follow their interests in choosing projects. Opinions of teachers would probably differ on this point, and it might be a worthwhile task to secure a cross section of teacher opinion through a questionnaire.

Another question in connection with achievement ratings in tests, is that concerning retention. Scores on the tests were far from perfection and there is a question as to how much effort and attention should be concentrated on securing higher ratings before proceeding with further units. Especially so is this important if retention is considered. If pupils do not retain the abilities de-

veloped even in a small degree, by the course, is it better to spend more time in securing higher achievement, or admit that more benefits will be gained by attacking further units? The question of superficiality versus intensiveness is raised. Just a little data from one school are available on retention in Tests I and II. These tests were repeated as final tests at the end of the quarter without any review. Table VI presents a summary of scores on these tests for comparison.

Table VI. Mean Scores and Standard Deviations on Tests I and II, Preliminary, Final, and Repetition, One School

	<i>Pre-Test</i>		<i>Final</i>		<i>Repetition</i>	
	I	II	I	II	I	II
Mean	14.88	16.02	48.80	39.42	43.96	34.92
S. D.	6.48	10.2	9.00	9.72	9.88	7.48

Some loss is evident for both tests. The question still remains open relative to values of courses which have been taken, from which there remains very little measurable residue. We like to excuse ourselves for lack of knowledge of certain courses pursued in previous scholastic life, by saying we received great benefits though we remember nothing or very little about them. It seems necessary to assume here either that non-measurable values are not worth considering, or that some tangible means of measuring them should be devised. Further procedures in the development of teaching units will be determined by tentative acceptance of either of these

two alternatives. If the former, means of teaching better so as to produce immediate and retained abilities are to be investigated; if the latter, some of the present intangibles must be made tangible. Probably a compromise is desirable at present.

These data represent types easily obtainable on a large scale. In general, they are in the nature of a partial answer to the question, "What do present high school students achieve when such material as included in this description is given them?" There is a great need for much more of this kind of thing before we are in a position to improve our courses decidedly. Other desirable procedures are evident, however.

Experimental procedures to determine the practice effects of the tests, using a control group receiving no instruction; validity and reliability determinations; means of conducting controlled experiments in methods of instruction; experiments to discover the effects of variable determining achievement such as general mental ability, past achievement, interest, personality traits, various specific abilities; all of these are essential. A very worth while program for the first week of the course in physics is a survey of the personnel of the class or classes. If carefully planned, it will make some of the studies mentioned above, easier. Teacher participation in reorganization is essential. There are certain local conditions which will always determine some details of the course. The survey helps to make these evident.

Thoughts Respecting the Budget

By H. M. GAGE, COE COLLEGE*

MR. H. M. GAGE: I wish to speak to you a moment about the budget of the Commission on Higher Education. The various items in the budget should be considered by themselves and in relation to the financial ability of the Association. They should also be considered in relation to the important work which the Commission is doing. It may be that a consideration of important work in process and projected will demand a budget in excess of available funds. In that case we shall be compelled to refuse opportunity and obligation or to provide additional income.

No one attending meetings of the Commission this year, and in years immediately preceding, doubts the vitality of the work of this Commission. Interest in proceedings has been lively and is increasing. Attendance at meetings has been growing. Presence at meetings is doubtless reflected in a wider and more careful study of the published proceedings. Looking forward one may well predict an increasing interest in our work during the next two or three years. Three major projects will absorb our interests and energies: (1) The application of our standards for organization and conduct of intercollegiate athletics. (2) The professional training of teachers in which there has been such a lively interest last year and at this meeting. (3) Reformulation of our standards to which we have been looking for several years and which has commanded so much attention yesterday and today. Carrying on our work in these three lines will require generous appropriations in the budget for this Commission.

The special committee on athletics should have \$500 next year. The committee has never received so much as that. To date it has spent not more than \$200. For the very important com-

mittee on the professional training of teachers we are going to ask for \$700 and possibly should ask for more. It will be necessary for us this year to set up a committee on revision of standards. In this project all of us are vitally interested. The officers of the Commission would, therefore, like to ask for \$2,000 for this committee. Such an asking, however, is quite beyond the present resources of the Association. Therefore, it will be necessary for us to consider the matter of increasing our income. It seems clear that we can not hope to make the research necessary for a satisfactory revision of standards with less than \$6,000 appropriated through a series of years.

I have mentioned budget items for special work. In addition we shall have to provide as usual the sum of at least \$3,000 for conduct of the secretary's office. The only comment necessary on this item is that no officer of the Association receives salary or remuneration of any kind. Appropriation for the office of this Commission is for usual office expenses and for the secretary's assistant.

All told, this Commission will have a budget next year of at least \$6,000, which is large considering the income of the Association, but small in view of our work. Therefore, we face the problem of increasing income by raising membership dues for institutions of higher education. The annual dues for such institutions at present are \$25. Will you, therefore, consider the advisability of increasing dues for colleges to \$50 a year. The Association of American Colleges in view of their enlarged program of the study and research in session last January made a like increase. Our Commission facing a similar situation should, therefore, be prepared to assume financial responsibility commensurate with the work done and projected. This statement is made in fairness and to prepare us for action which now seems to be inevitable.

*A Stenographic report of certain remarks made on the floor of the Association Meeting, March 15, 1929.